

Children's Newspaper, October 30, 1937

Post the CN to
a Lonely Child
See back page

The CHILDREN'S NEWSPAPER

AND CHILDREN'S PICTORIAL

The Story of the World Today for the Men and Women of Tomorrow

Number 971

Week Ending
OCTOBER 30, 1937

EDITED BY ARTHUR MEE

Postage Anywhere
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UP IN THE SKY & DOWN IN THE SEA

See
middle
pages

LIVES IN THE SHADOW

Tragedies That Brand
the Memory

A LINK WITH THE TITANIC

It is pathetic to realise that the lives of honest men may be sometimes lived in deep shadows.

There has just passed away a man who was chairman of the White Star Line which owned the Titanic, Mr Bruce Ismay. He was on the ship when she was sunk by collision with an iceberg in April 1912. More than 1500 persons perished in that terrible, that unforeseen, that unavoidable disaster, and the shadow of it fell on Bruce Ismay's life. He had sailed, like all the rest, as an ordinary passenger. But it was remembered only that he was the Company's chairman.

He Did His Duty

Forgotten was the way he had striven like a man to save others. After her side had been stove in the Titanic kept afloat for more than two hours. During that time of lingering dismay and fright Bruce Ismay helped the women and children into the boats, and assisted in lowering them over the side. His station was on the starboard side, and only when there was not a woman to be seen on the boat deck, nor any passenger of any class, did he accept a seat in the forward collapsible boat. Never mind all that, said his critics: he was the chairman of the company, and he should not have left the ship at all: he should have gone down with it.

Nothing could be more unjust or unreasonable than such censure. On the ship he was no more than a passenger, so far as he could have any voice in the ship's handling in fair or foul weather, in the hour of danger, in the face of the threat of death. He had done what he could. But because he survived while others perished his life was overshadowed by the calamity, and even by his escape from it. A quarter of a century went by before he passed into the valley of another shadow, where only his good deeds are counted.

The Titanic's Captain

The captain of the Titanic, on whom by all the laws of the sea responsibility for the disaster rested, remained on the bridge after all the boats had gone, and went down with his ship. That is another law of the sea, and no captain, though his life be the cost, shrinks from obeying it. But the experience of the Titanic's captain was a strange one. Though he went down with the ship, he struck out when plunged into the icy water, found something to which to cling, and was rescued after many hours. His story and his life thereafter must

A Cavalcade on the Lancashire Coast



Deserted now by the holidaymakers, Blackpool's famous sands can be used by these riders for exercising their horses

be known to many, though we cannot tell it. But who can doubt that he too lived under a shadow as deep as that which fell on Bruce Ismay. Nothing he did or could have done made any difference.

The shadow of tragedy came and stayed: it was not cast on him as blame, but it was there in his own mind and heart. Captain Smith's last words from the bridge, before the Titanic took its plunge into the deep, were shouted to the crew, still on the ship with him. "Every man for himself; men, I release you." But from him the shadow could never be released.

Up the Matterhorn

Other men have lived under the shadow. More than seventy years ago, when the Alpine peak the Matterhorn was still unconquered, a party of Alpine climbers set out in July 1865 to reach its summit. The party were Lord Francis Douglas, Rev C. Hudson, Mr D. Hadow, and Mr E. Whymper. They were roped together, two of the Swiss guides with Mr Whymper leading the way. At the most perilous passage of the ascent some one of the lower members of the party slipped; others slipped immediately, and a terrific strain was put on the rope. It broke below Mr Whymper, and his three English companions fell to their death. He alone was saved, with two guides, as by a miracle.

His life was given back to him when it seemed lost, but he walked in the shadow of that calamity for more than half a lifetime afterwards, till he too passed on in 1911.

Joyce Hancock's Fortitude

There is lying in Westminster Hospital, across the road from our National Shrine, a Girl Guide who by her heroic fortitude may be said to represent the highest spirit of our race.

This is the story of what happened at her bedside the other day.

The small eye ward of Westminster Hospital had for an hour become transformed. It was decked with flowers, and only one bed remained, in which sat Joyce Hancock, smiling proudly on the little group gathered there. It was her day, and all were there to offer her congratulations, and all, we are sure, were envying her her amazing pluck.

The Great Day

The Assistant County Commissioner of Kent, Mrs Fairweather, had come to present the Badge of Fortitude, and with her came Miss Gladys Cawter, Divisional Commissioner, and Miss Marjorie Mee, District Commissioner for Dartford, where Joyce is a member of the Holy Trinity G.F.S. Company. Her captain and some of her fellow Guides, relations, and friends had all come for this great day, and from the hospital came matron, doctors, sisters, nurses, and the chaplain.

Mrs Fairweather, in the name of the Girl Guide Movement, pinned the badge on Joyce's blue bedjacket, and Sister came forward with a pile of telegrams from friends unable to be present. Then Joyce acted as Fairy by giving everyone a present, there was a little prayer, and all had tea.

The Badge of Fortitude, given to a Guide who shows great courage in sick-

ness, has been earned by Joyce many times over. Eighteen months ago she was taken ill. A growth had developed on her eye and was removed, but there was more trouble and she had the eye removed. Thirteen radium seeds were inserted, and because the anaesthetic made her sick she asked if she might have them removed without. This they did, and when she cried a little afterwards she apologised and said "It did hurt rather a lot." She pulled herself heroically through five operations, and we were told that one day a patient in the next bed asked Joyce if she was a Guide. "Why do you ask?" said Joyce; to which the voice in the next bed said, "Because only a Guide could have been as brave as you."

Next to the V C

Joyce went to camp this summer, and it was hoped the open air would do more for her than science; but in a month she was back in hospital for yet another operation. She told her friends of this, explaining how it had been done from inside her cheek so that it would not show, and then, with great confidence in her voice, said, "I am going to have deep radium treatment now."

They left her happy and smiling and prayed that God would spare her further suffering. She is 14, and she lies as brave as Francis Drake, as patient as Florence Nightingale, as sacrificing as Sir Philip Sidney, mid streaming London's central roar, wearing the badge which counts among the Guides as next to the V.C.

KING GEORGE AT WESTMINSTER

The Majesty of Parliament EFFECTING THE WILL OF THE NATION

With all the pageantry of ancient custom King George the Sixth has this week delivered his first speech from the Throne in Parliament.

All over the country men, women, and children have been looking forward to the new session with its new measures and, we trust, new encouragement to the world in these critical times. Girls and boys as well as their parents have an interest in its proceedings, for their lives, their health, their education, their happiness, the terms under which they labour when schooling is ended are governed and influenced by what these men and women do at Westminster.

Our Representatives

The members sit in Parliament through no signal merit or virtues of their own, but because they have commended themselves to the judgment of the majority of people who have votes; and it is the views and wishes of these people, the fathers and mothers and the grown-up brothers and sisters of readers of the C N, that they seek to translate into Acts of Parliament.

It was not ever thus. In the old days, down to the time of the Stuarts, men came to Parliament chiefly through influence or wealth, representing no views but their own or those of their patrons.

There were no public reports of Parliamentary proceedings, so few knew how a man had voted: hardly anyone even knew if he had voted at all.

The Long Parliament

It was those days that called forth the first attempt to organise the opinion of the country. Pym and the immortal Hampden undertook a vast riding tour to persuade the constituencies to return to Parliament men who were brave and fearless and determined to defend the nation against the tyranny of Charles Stuart. A famous historian sees in the Long Parliament that resulted the salvation of the British Empire.

It was a little chamber in which the men who saved us met together, a chamber with a gallery running round it, the gallery reached by a primitive ladder from the floor. It was a breach of decorum to obstruct this ladder, and to a member who forgot the rule the Speaker cried one day

"Don't sit on the ladder as if you are going to be hanged."

Yet it was from that assembly, loosely held together by ties formed as members rode there and back on horseback, or walked in conference among the graves in the churchyard of the Abbey, that a policy was struck out which completely changed the face of history.

Critical Days

Parliament came to a day when it had to meet without a king, for Charles was eventually executed; and it was thought that that must be the end of all things. It was forgotten that Simon de Montfort summoned his first great Parliament when Henry the Third was in prison; and that Richard the Second was a captive in the Tower when Henry the Fourth, who had deposed him, called together the Parliament of 1399, dating the summons to members the day before Richard's deposition.

Our present Parliament has re-assembled in critical days, with grave problems facing it at home and with the international horizon ablaze with peril and terror, but they and the King are in perfect harmony.

THE TROUBLED WORLD

The Dictators and the Wars

The troubles of the world grow more and more, but there is great ground for hope in many ways.

The effect of Mr Roosevelt's trumpet-call, like that of the British rearmament, has been noticeable everywhere. The Dictator countries are by no means having everything their own way, for their economic difficulties become more and more intense, and in Italy as well as Germany there are growing signs of restlessness, and criticism finds various ways of expressing itself.

In Italy the Special Tribunal for the defence of the State had before it the other day 17 intellectuals charged with political offences, such as holding secret meetings and smuggling in pamphlets aimed at the overthrow of the Government. All the men were placed in a great iron cage and were tried in secret.

Terrorism In Italy

There is no doubt also that the news of the hard-pressed Italian army in Abyssinia, where officers and soldiers have been killed in guerilla fighting, is causing discontent. The Italians are still a long way from the conquest of the Abyssinians. All over Italy terrorism has been growing. Great numbers of people have been arrested on suspicion, and have been subjected to such punishments as have long passed out of civilised countries. New concentration camps are being opened in wildly remote places. In one small town near Florence there is such indignation with Mussolini for sending forces into Spain that money was collected for the Spanish Government and the police have arrested 130 people.

All this may be regarded as evidence suggesting that no one can say what may happen in the future, and the same hopeful evidence lies in the continued resistance of the Confessional Church in Germany. Not yet have the Nazis conquered the brave pastors and their followers, though more than a hundred of them are in gaol with their leader, Dr Martin Niemöller.

The British Attitude

At the same time the wars in Spain and the Far East continue, both with a growing strength of feeling against the aggressors. It is hoped that at last a drastic step will be taken to withdraw the foreign armies from Spain and to leave the Spaniards to fight out their own salvation; and it is believed that in the Far East worldwide opinion will bring Japan to her senses.

Mr Eden's speech, asserting that the British Government is not indifferent to the changes threatening the Mediterranean, has given great satisfaction both in this country and in France, and the two Governments are working in close harmony to preserve the peace.

LET US BE FRIENDS

And Let Hate Perish in the Camp Fire

A significant exchange of views has just taken place between the French Prime Minister, M. Chautemps, and the German Reich Youth Leader, Herr Baldour von Schirach.

The French Premier says:

A long past, full of work and fame, lies behind our two countries, and in spite of their frequent collisions they retain admiration and respect for each other. If we should succeed in uniting our youth we should hold the future of Europe and of civilisation in our hands.

The Reich Youth Leader says:

May the old enmity between our two countries perish for good in the camp fires of our beloved youth. What we can do to that end will be done.

BY THE GRACE OF GOD

And the Genius of Englishmen

A GREAT ACHIEVEMENT OF DEMOCRACY

A high tribute was paid to Mr A. P. Herbert, M.P., at the Marriage Law Reform League, which believes that the new Matrimonial Causes Act (pioneered through Parliament by Mr Herbert) is one of the great achievements of our time.

Mr Herbert, in acknowledging the tribute of a distinguished gathering, made a notable speech, from which we take this passage:

At a time when Parliamentary democracy needed every word of commendation it could get we have scored a good mark for the method of argument, reason, and delay. We have shown that a Parliamentary democracy could handle without bitterness or brutality the most dangerous and explosive material in all the arsenal of religious controversy. To his secret and great delight we have shown that Oxford might not always be the home of lost causes.

Lastly, they had shown that under our flag of freedom through this antiquated machinery of committees, chatter, and compromise it was possible for the spirit of man to attempt impossible things and by the Grace of God, by the genius of Englishmen, and by the genius of the British Parliament the most lost of all causes might come at last triumphant.

The Marvellous Mind of a Farmer's Son

The British Empire and the whole world of Science have lost a great figure by the passing of Lord Rutherford.

The son of a New Zealand farmer, he was sent to an English university, where he won such fame that his name will live for ever in science. He discovered the secret of radioactivity and accomplished the remarkable feat of splitting the atom.

He made the Cavendish Laboratory in Cambridge the centre of an amazing series of experiments which opened up new paths in many fields of knowledge.

A Great Step to Peace

Germany has now formally undertaken not only to respect the integrity and inviolability of Belgium, but to support Belgium if she is attacked or invaded by another third Power. This undertaking is absolute, and holds good in every circumstance unless Belgium herself attacks Germany or allows any other nation to use Belgian territory as a means of attacking Germany.

This undertaking was made in consultation with Italy, and Italy has indicated that she will herself give a similar undertaking to Belgium.

Both Germany and Italy point out that this action is in pursuance of the policy of peace which they jointly declared to the world at Berlin. At the very least it is a welcome step. The Germany of today now solemnly promises not to do what was done when the Germany of 1914 invaded Belgium to strike at France.

A Portrait Round the World

A portrait which has gone round the world is now being exhibited in London.

It is that of Miss Mary Manson, painted by her father, Mr J. B. Manson, Director of the Tate Gallery. Mary is the granddaughter of James Manson, who many years ago was on the Editor's staff of the Children's Encyclopedia, and was an editor of Cassells when that firm was educating Young England last century.

When her portrait was on exhibition in Japan coloured picture postcards were made of it, a high compliment to the popular Director of our Tate Gallery.

LITTLE NEWS REEL

So popular has the new Australian crown piece proved that a million issued are almost all out of circulation.

A camping site of eight acres at Whitby has been presented to the Boys Brigade by Major F. Dunn.

News comes from Yugo-Slavia that a peasant has found the skeleton of a mammoth, one of the few complete mammoth skeletons ever discovered in the Balkans.

Visitors flying to the Continent will shortly be able to take their cars with them. International Air Freight are altering the doors of their giant red biplanes so that light cars can enter.

A Wood Green doctor examining a patient for stiff neck the other day found embedded in his neck a piece of shrapnel from the Great War.

The Forestry Commissioners have taken over the Grizedale Hall Estate between Windermere and Coniston, 4200 acres.

Even at 9000 feet above ground a pilot flying over South Australia and Victoria found that he could not get above the dust which a gale blowing at 60 miles an hour was sweeping onward and upward from Central Australia.

Growing from the tower wall of the parish church of Bradford-on-Avon is a remarkable fig-tree, which attracts a great deal of interest among visitors, who are puzzled by the fact that it is not growing from a gap between stones but right from the middle of a stone.

A chapel to be run by children has been opened at the Countess of Huntingdon's Church in Brighton.

A bottle thrown into the Atlantic off the USA coast on June 2, 1934, has just been picked up at Whitehaven in Cumberland.

The War Club That Became a Mace

There has lately passed away a great friend of the Fiji people in the days when Thakombaw ruled as king over them.

He was Mr Adolph Brewster, a pioneer of sugar planting, who joined the Civil Service of Fiji in 1884 and remained with it till 1910. He brought a contingent of Fijians over to the coronation of Edward the Seventh, and he did one interesting thing by which he will be long remembered. In 1930 he was the means of bringing to light at Windsor Castle a war club presented by King Thakombaw to Queen Victoria, and George the Fifth had the club returned to Fiji, where it is now used as the mace of the Legislative Council.

THINGS SEEN

An old manor house in Wales, submerged in a reservoir in 1907, seen in low water during a drought.

Chicks hatched in an incubator at Charing Cross Underground station.

Thousands of starlings circling round and round the C N office.

THINGS SAID

Pedestrians should be seen and not hurt. Lord Mayor of London

After six Polar flights my enthusiasm goes on. Mr Lincoln Ellsworth

The seasons have been lagging in modern times; there is a kind of ebb and flow. Secretary, Meteorological Society

The dictatorships are over-reaching themselves, and power and opportunity are returning to the nations that believe in peace and humane government.

Lord Allen of Hurtwood

The road hog will always be with us until we put him in gaol and deprive him of his licence.

Mr E. F. Hadow, coroner for Mid-Warwickshire

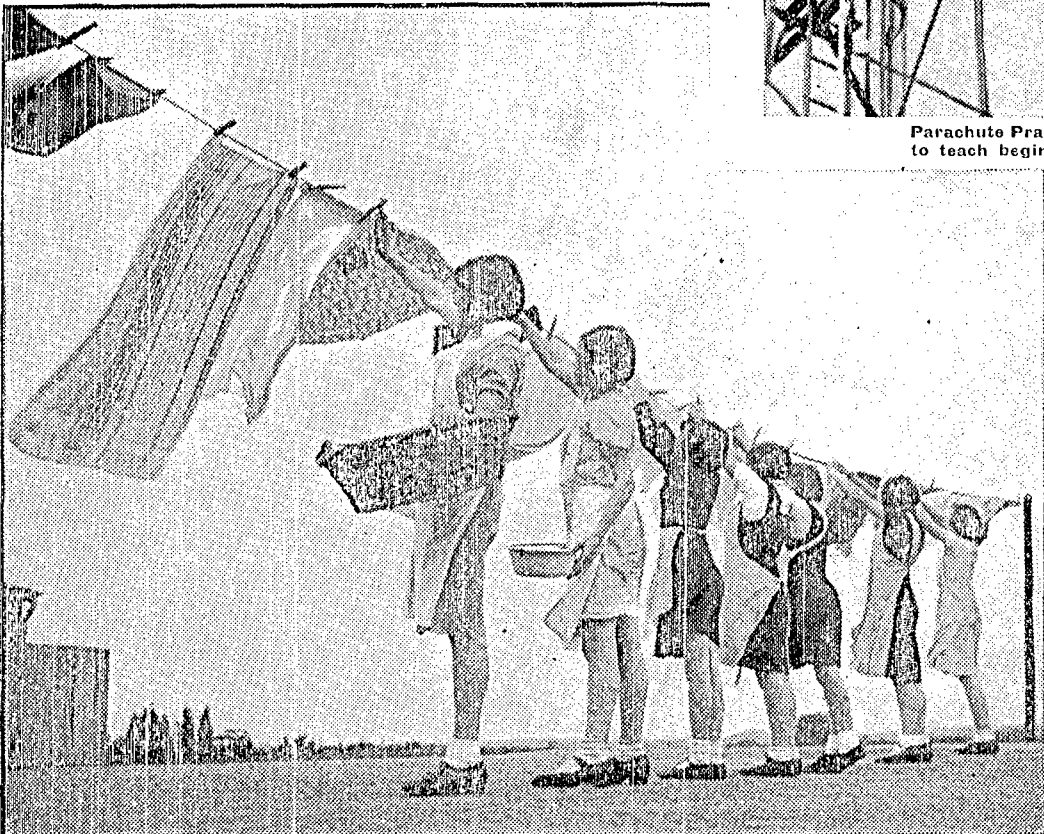
Elephant Sweeper • Washing Day at School • Parachute Tower



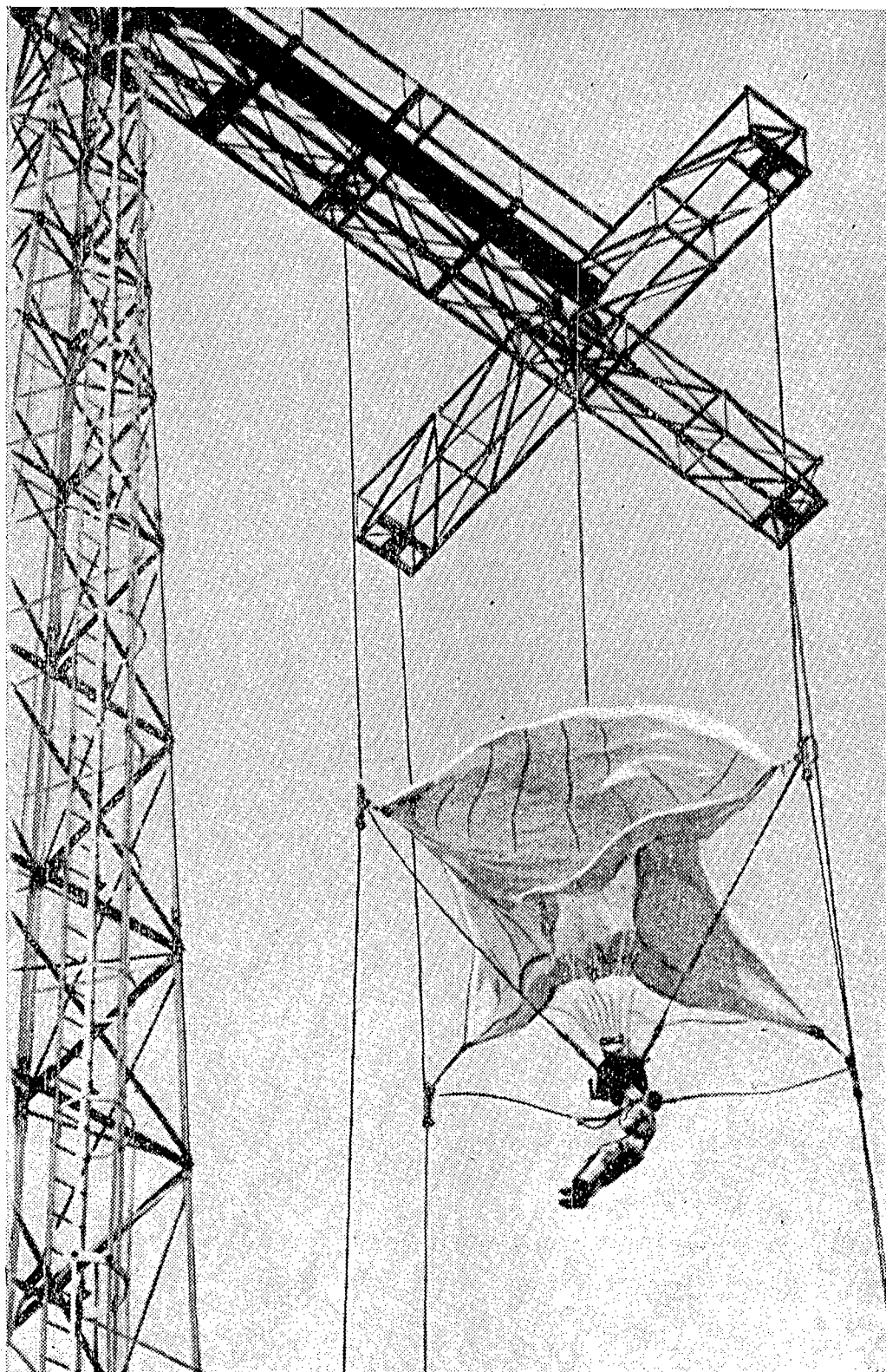
Tidying Up—An elephant at Liverpool Zoo helps to sweep away the leaves



Nurses at School—At a lecture in the new training centre and nurse's home given to St. Thomas's Hospital, London, as a memorial to Lord Riddell



Washing Day—Hanging out the clothes at a school at Ongar where all branches of domestic science are taught



Parachute Practice—A new type of tower designed by a New Jersey inventor to teach beginners. The descent of the parachute is controlled by cables



Conkers—A thrilling match in a Bristol byway

QUEEN MARY'S CHERRY TREE

The Rich Merchant's College

Now and again a quiet place jumps into the news for a while, and then, unnoticed, resumes the even tenor of its ways.

Such a place is Morden College at Blackheath, one of the most delightful buildings Sir Christopher Wren gave us. Seven lord mayors of London went there three years ago to unveil a new window in its chapel; it was then we told the story of its founder, Sir John Morden, the rich merchant of Aleppo. Now we are reminded of the old place by the recent visit of Queen Mary, who took a great interest in its treasures, and planted a cherry tree in its grounds.

The peaceful courtyard of the college has a lawn gay with flowers, and the paved cloisters open into little houses, each with its own hall and staircase.

Yeoman of the Mouth

Much of the carving is said to be by Grinling Gibbons, including the lofty oak reredos sculptured with cherubs and festoons, and a pair of cherubs smiling from the leaves and flowers on the gallery. The six-sided pulpit has rich mouldings, and its inlaid canopy has a cornice carved with leaves. There are panelled walls and box pews, and rails with twisted balusters run round three sides of the altar. The brightly coloured east window has glass of about 1600.

The dining-hall has fine blue and yellow tapestry, showing David being greeted with music as he returns from battle with the Philistines, and on either side of the fireplace are portraits of the founder and his wife by Sir Peter Lely.

There is a delightful garden, and in it is the King's Tree planted in 1935 to take the place of a decayed cedar probably planted in 1695. In the walled burial-ground is a spreading old mulberry tree shading the stone of John Thompson, who was "Yeoman of the Mouth in the kitchen of Charles the Second." Queen Mary's cherry tree is in goodly company!

He Saved the Horses

A wagoner did a brave thing a few days ago when his wagon and horses were trapped on a railway crossing a few miles from Bridlington in Yorkshire.

Mr Raymond Briggs was taking a load of manure into a field beyond the railway. When his wagon was halfway across the lines one of the horses shied, turned sharply, and wedged the wheels of the wagon in the rails. Before the man could get help, or was able to take the horses out of the shafts, an express travelling at 60 miles an hour approached the crossing.

It was then Mr Briggs did a fine thing. He knew that nothing could save the wagon, but he determined to save the horses if he could. At grave risk to himself he held on to the terrified animals as the train thundered down the line, smashing the wagon to pieces, tearing the harness to ribbons, and frightening the animals so that they reared and struggled. Fortunately, neither the horses nor the man who controlled them were hurt.

Rubber For a Noisy Street

That famous thoroughfare Lombard Street is so narrow and so noisy that the City of London has decided to pave it with rubber.

It is to be a costly job, for the price is £2 5s a square yard, part of which will be met by the owners of the buildings lining the street. This is in addition to the cost of concrete foundation, which is a further 20s a yard. It is hoped other streets will follow suit.

WHO CAN UPHOLD THE DEEP?

Why a Channel Tunnel May be Impossible

WE have all grown up in the belief that the engineer could at any time make a tunnel under the Channel from Dover to Calais, and that only economic and perhaps political reasons prevented the plan from being carried out.

We know that the chalk of the Kentish Downs continues under the sea away to France, and we have been taught to consider the formation uninterrupted and uniform. But now comes a surprise.

Sir Alexander Gibb, one of our most famous engineers, has been sounding a note of warning in the course of a scientific address to members of his own calling. The chalk might not be continuous; there might be a "fault" in it, the result of the intrusion of some other substance.

We all know that when tramping in chalk country we come upon places where the chalk abruptly ends and sandstone takes its place. Now, says Sir Alexander, it would be perfectly easy to

make a tunnel under the Channel, but if the engineers suddenly came upon a fault, where the chalk was not present and its place taken by some material less resistant to pressure, and above the fault there occurred a great depth of water, there is nothing as yet known to engineering science which could maintain the work in the presence of the enormous pressure that would be experienced.

We do not know that the sea-bed is uniform in structure; we do not know that there are not faults under the water resembling those we find on land, and we have no guarantee that if such a weakness were discovered when men were tunnelling under the sea we could keep open the tunnel and get the workers back to safety. There is no proof at present that in such conditions we could carry out the work at all.

If all this is so, the Channel Tunnel is no nearer now than when it was first projected in the reign of Queen Victoria.

Where Does Boadicea Lie?

BOADICEA'S Grave Found by Plane. We read in the news the other day, and we wish it could be true.

What has actually happened is that photographs taken from the air for the Royal Commission on Historical Monuments for Middlesex have revealed earthworks, invisible from the ground, near Bentley Priory, Harrow Weald, connected with a mound locally known as Boadicea's Grave, the site which is supposed by some to have been the site of the queen's last battle.

But it is purely local legend that it is so; nobody knows where the wronged queen lies, or where the decisive battle was fought. All we shall ever know is that, after her destruction of Colchester, London, and St Albans, the little Roman army under Suetonius, accompanied by their compatriot civilians and Romanised Britons, retreated before the victorious queen until their leader could find a suitable place in which to give battle.

Tacitus is our authority, and all he can tell us is that in some place unnamed the Romans chose a spot encircled with woods, narrow at the entrance, and sheltered in the rear by a thick forest. In that situation, says Tacitus, he had no fear of an ambush:

the enemy had no approach but in front. There the battle was fought and lost, the splendid queen, with her daughters by her side, leading the Britons in her war chariot. She saw her forces defeated with a loss of 80,000, says the record. Her last hopes gone, "Boadicea, by a dose of poison, put an end to her life." That is all we are told.

Many sites have been suggested. Some have thought the battlefield was where King's Cross station stands. It was once proposed to call the scene Boadicea's Cross, and in support of the theory of the engagement there the name Battle Cross was the one actually borne by the district for many years.

But scholars who have worked long on the problem will not have London or its neighbourhood as the scene of the tragedy. They agree that it must have been somewhere along the great Roman highway of Watling Street. Suetonius could not have moved his army of ten thousand men and all the fugitives except by such a route. Some believe that he got as far as Chester before turning at bay.

All who are qualified to express an opinion agree that it must have been between London and Chester, but how far from the capital is mere guesswork.

Queer Tricks in The Arctic

THE Russians near the North Pole are now making everything snug and warm for the long winter night, and we may wonder if the Arctic will play some of its tricks on them as it has so often done on earlier explorers.

Here at home it is difficult to understand the illusions which fog and snow can produce, but the story of Arctic exploration is full of instances of them.

Nansen has several amusing examples of the way in which objects at a little distance can assume strange shapes; and for much of his historic sledge journey southward he and Johansen were puzzled by the discrepancy between Lieutenant Payer's map of Franz Josef Land and the islands they found. Payer returned home with an account of the mighty Dove Glaciers which he had seen shining down on him, the land trending away to the north-east; but Nansen could find neither glaciers nor coastline, and it seems that Payer had mistaken some banks of cloud for huge masses of ice.

Professor Nordenskiöld, the first Arctic explorer to sail round the north of Europe and Asia along the North-East Passage, tells us that one can scarcely form any idea of the optical illusions

produced by mist, and that the obscure contours of the fog-concealed objects are often by the ignorance of the spectator converted into whimsical forms.

During one of his journeys he intended to row to an island. When the boat started the air was clear, but while they were shooting sea-fowl for dinner everything became wrapped in thick mist. They exerted themselves as much as possible to get in sight of the island where the beach would afford them a safe resting-place. While straining at the oars a dark border was seen through the mist at the horizon. It was taken for the island; but soon two white snowfields appeared, one at each side. They had not observed them before, and immediately after the fields came in sight the scene was changed to a monster as big as a mountain. But this creature suddenly sank to the proportions of a walrus on a piece of ice, the white tusks forming the snowfields, the dark brown head being the mountain.

All at once one of the men cried, "Land!" There it was before them, as they thought, with mountain peaks and glaciers, but the next moment they saw that it was really only a piece of ice with a little earth sprinkled over it.

FIRST FRIEND FOR THE BLIND

The Dogs That Lead Him on His Way

Bella, a black Alsatian, made history at Brighton. She gave a new standing to the blind man's dog.

For long years the blind man tapping his stick on the pavement as he went along the street with his dog at the end of a string has been well known. But Bella is not in that class, and this is what she did at an exhibition given at Brighton of a trained dog's abilities.

Wallasey's Prize Pupil

She led her blind master, Mr A. Morgan, over the busiest crossings at Brighton, such as those at Old Steyne and St James's Street, halting at the kerb, and waiting till there was a lull in the traffic. Then, having piloted him across, she stopped at the opposite kerb as a signal that he had to step up. She kept a wary eye for low shop awnings; she steered him past lamp-posts, pillar boxes, and other wayfarers, of which there were not a few, for word had gone round that Bella was going to give a performance, and many accompanied her and her master through the streets.

Bella's performance was, in fact, a demonstration of the success of a training school at Wallasey for dogs to guide the blind. She is, we should think, a prize pupil, because every day Bella accompanies her master in the train to Liverpool, and then leads him two miles through the city to the docks, where he is employed. Once a year she takes him to North Wales for a holiday.

But there are others of these friends of the blind, and at the Wallasey School it is said that only one in five fails to pass the tests. When the dog has done that the blind master comes also to the school to arrive at an understanding with his new companion. Companion is the right word, for the blind people say the dogs give them a new independence, and become inseparable friends.

A Tale From St Dunstan's

We have come on one such dog in our walks in London, though he does not come from Wallasey. He leads a blind woman through traffic-haunted Battersea, and her husband said of the dog that he was more obedient than a child and had more sense than a human being.

Many tales are told of those dogs. The most clear sign of all of their intelligence is that they will pick up anything their master drops.

A tale is told of a St Dunstan's blinded soldier whose dog, after taking him to the post office to collect his pension, kept rubbing its head against his leg. He bent down to stroke it and, behold, the dog was carrying in its mouth the pensions book his master had dropped on the way home.

Luxury in the Car

It is not surprising that the Motor Show continues to break all records, for there are few more attractive spectacles in London every year.

This year it has been wonderful to notice the development of luxury in the car. The electrical cigarette-lighter is, of course, familiar, but there are now electrically worked windows, blinds, and sliding roofs; all the driver need do is to press a button and these things work. There are lights worked by the movement of the doors, cars with wireless sets and electrical radiators, and cars with deep armchairs which wind forward to allow a traveller to lie as on a sofa.

We are sorry to see the cars with wireless sets, for they appear to us extremely dangerous in diverting the attention of the driver, and are also apt to be a public nuisance; but there is no question that the motor industry has at its disposal an almost unfathomable source of ingenuity.

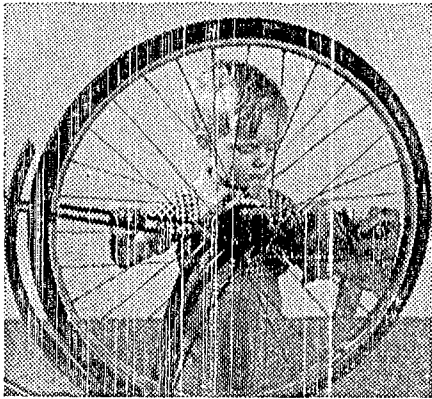
MANX COTTAGES

The Isle of Man is to preserve some of its old cottages as museum pieces.

Every year the island is losing more of its quaint thatched cottages, which were once part of its charm, and the Manx Committee of Museum Trustees has visited Cregnessh, where some of the homes of the last people to speak the Manx language are still to be seen. Some at any rate of their cottages, furnished in old-fashioned style, are to be preserved for all time.

THE COIN IN THE PUDDING

The Royal Mint has issued a warning to cooks. The new 12-sided three penny-pieces should not be hidden in Christmas puddings. As the coins are a mixture of brass and nickel, it is possible that they might spoil the taste of the pudding, if they did not actually poison it. The custom of hiding coins in Christmas puddings has never been a good one; cooks will be well advised to make an end of this dangerous custom.



Cleaning Father's bicycle

WHAT WELLINGTON BOYS HAVE DONE

Many people entertain as an ideal the conception that all sorts of work, hard and smooth, should be shared up. Indeed, that is the idea behind the German labour year performed by men of all classes.

To show what British boys can do, 230 boys at Wellington College, Somerset, going to work in professional style with lorries and mechanical soil shifters as well as wheelbarrows and shovels, have made 15 acres of playing-field in two years during their spare time.

POOR HOBO

Pity the poor American tramp! It looks as if he will soon have to walk, and the Hobo, as he is called in the United States, does not like to walk.

The hoboes have long been in the habit of waiting until a moment before the time for a train to start, and then crawling on to the little shelf made by the double brake rods under American railway carriages. They are proud of their ability to stay on these dangerous perches for hours.

But now the new streamlined trains are appearing in ever greater numbers, and most of them have only a single brake rod, which makes riding on them extremely dangerous. And, worse still for the hobo, inventors are working on a new type of brake which will do away altogether with rods underneath the American railway carriage.

BIRDS AT THE POLE

From the Russian scientists at the North Pole comes the news that, contrary to all expectations, animal life exists there.

The captain of the expedition tells how surprised they were to hear the song of a bird. At first they thought it must be one brought by an aeroplane, but other birds (of various species) have since appeared. Also, there are seals and sea hares, who feed on jelly-fish and various crustacea.

Friendly Colonies at Home

IN the area of Wigan the Quaker Order of Friends has founded four colonies for the new kind of distressed emigrants.

These are the emigrants who have not left their work but whose work has left them. They are the unemployed of greying hair, and of infirmities slowly creeping on, who are growing too old for the job. They are of the sturdy working type who, though they grudgingly admit they are not so young as they were, cannot make employers believe they are as good as the men who are younger and who want work as much as they do.

What is the best that can be done for such men? Colonies at Pemberton, Parbold, and Standish—all within a few miles of one another in Lancashire—and another colony in distressed South Wales,

give an answer. These pitmen, quarrymen, steel-workers, engineering hands, if they can no longer find a place where they handle steel and iron and minerals, can handle cattle and pigs, take a turn at curing bacon, making jam, or baking bread. That is what they do at Pemberton, Parbold, and Standish, where also they may learn new trades, as in Pemberton's cobbler's shop. It is never too late to mend.

It is also never too late to begin, when a beginning is made in the right way, and these colonies for those whose spirit is willing though their flesh is weak seem to meet the hard case in the best possible way.

They are, unlike the old-fashioned emigrants, no longer exiles from home: they stay in their country for their own and their country's good.

FLY STOPS A CLOCK

A bluebottle fly recently caused a 4700 clock at Stocksbridge, near Sheffield, to stop for over an hour. The fly got jammed between two cog wheels, and a maintenance man spent 20 minutes overhauling the clock before he discovered the cause of the trouble.

TWO OUT OF SO MANY

That rare species of lizard the iguana has given rise to excitement and interest at the Zoo. One of these big lizards laid 42 eggs last May, dropping them to the ground from a tree in her glass cage. Many eggs have been laid in the past, but owing to the cold spells in the English spring never an iguana has been hatched—till now, when two have crept from their broken shells.

About five inches long (three being tail), they are a vivid green, with furtive brown eyes, and frills under their chins. They have been given special quarters with a temperature of 85 degrees and are fed every few hours.

A NEW TEXTILE

The discovery of a new natural textile is announced.

The new fibre is known as cotone, and production on a commercial scale is soon to be begun. The fibre was grown experimentally last year, and a company has been formed in England to develop it commercially.

Produced by a textile chemist after many years of botanical and chemical research, cotone is a perennial plant resembling cotton, but less costly to produce and capable of being grown in most temperate and semi-tropical countries. The claim is made that it is 40 per cent stronger than cotton; and it is said that it can be spun on existing spinning machinery and in combination with other fibres, including wool. Yarns produced from cotone can be made up into a variety of fabrics.

BOOKS IN MINIATURE

The micro-film is solving problems for scholars all the world over.

American students especially are to benefit by this new method of duplicating books which photography has made possible. Some 4000 books in the British Museum, published in England before the year 1550, are being copied, page by page to the number of 400,000 pages, and tiny films at a farthing a page will be supplied to 14 libraries in America which have subscribed to the scheme.

The micro-films will be enlarged and read by students at these libraries as easily as if they were in the famous Reading Room in Bloomsbury.

THE LITTER PACKET

The litter question is always with us. One of the latest suggestions is that the photographic, tobacco, and chocolate firms should be asked to print on their packets a request that the packets should not be thrown down.

We fear the request will be ineffective, but these great firms could do much to help in ridding the countryside of a nuisance if they would make their cartons less conspicuous, printing them in darker colours. These popular cartons are in no need of advertisement, and it would be a public service if they could be produced so that when thrown down they would not be so conspicuous.

ABSENT FRIENDS

Selby is again to entertain absent friends this Christmas time.

Last year Selby folk paid for a four-course dinner for the unemployed of Jarrow while they themselves sat down to a dinner of soup and bread. This year they are to sit down to soup and bread, but they will pay for a good dinner for some of the 2000 unemployed in the unhappy Northumberland town of Haltwhistle, where the coal mines have been closed down.

BURIED TREASURE

China has been burying her treasures.

The war with Japan has endangered the world-famous Chinese art collection exhibited in London last year and valued at about ten million pounds. A few bombs from the air could easily shatter these masterpieces in jade and porcelain, these pictures and silks and brocades gathered by Chinese emperors over two thousand years. For safety the valuables have been packed up and sent from Peking into the interior, there to be housed in secret vaults till the danger has gone.

SOMETHING NEW IN THE GARDEN

Yorkshire has a flower unlike any other in the world.

The new flower, an accidental cross between a dahlia and a scabious, has the characteristics of both. It was first seen three years ago in Mr Frank Atkinson's garden at Pateley Bridge, and since then the blooms have increased in size and splendour till now this new flower is singularly fine. Roughly twice as big as the ordinary Coltness Gem, it has bright red petals surrounding a centre of tightly packed miniature trumpets with yellow stamens. It grows about 18 inches high. About 100 plants have been reared from the original freak flower.

LEARN TO RELAX

How strange it is that we should have to learn to relax!

It seems perfectly natural, when the jobs we have set out to do are finished, to "down tools" and rest. And yet probably only one person in ten does so. We sink into a chair, stay there for about two minutes, then jump up and find something to do. Almost as if we are afraid to have a half an hour to ourselves in which to read, listen to the wireless, or just do nothing!

Yet if we are to obtain any lasting happiness in life we must try to relax completely, mentally and physically, even if it is only for a few moments, each day, however busy we may be.

TINY TOT AT TABLE

Miss Eleanor Brown is making little ladies and gentlemen for Hartlepool.

Headmistress of Throston Infants School, she has received permission from the Education Committee to give her pupils lessons in table manners. The tiny tots are not allowed to eat their morning lunch as they used to do, for instead of disorderliness there is orderliness. Guided by their teachers, they are taught to lay the table. They have paper cloths, paper plates, and paper napkins. There are knives and forks and flowers, and when the tables have been set the little folk sit down to lunch as if they had been born into high society. Hands are washed, grace is said, and no grabbing is allowed.

HELPING THE BUS PASSENGER

Manchester is trying out buses with a new device. On the conductor's platform is an indicator, showing by lighted squares which seats are occupied on the top deck. When all the seats are occupied the indicator shows the word Full, passengers therefore knowing they have to go inside.

EIGHT HOUSES

Keighley in Yorkshire is making an interesting housing experiment.

It is felt that often when people suffering from tuberculosis are discharged from a sanatorium they are compelled to return to a house altogether unsuited to them. In order to make it possible for patients to have a chance to grow well and strong again, the council is erecting eight specially designed houses among 101 houses on one of the Corporation housing estates. They will have an isolation bedroom on the ground floor, its window space being seven times as big as the normal area.

Music in the Mountains



CHILDREN'S NEWSPAPER

OCTOBER 30 1937



THE EDITOR'S TABLE

John Carpenter House, London

above the hidden waters of the ancient River Fleet, the cradle of the Journalism of the world



Never Too Late to Learn

LORD NUFFIELD'S gift of a new kind of college to Oxford shows how well he has learnt this lesson of life.

His college is for those who, like himself, have been to life's hard school and have had to put its teaching into practice. Some may have become lawyers, or historians, or economists; and some have devoted their lives to the study of the races of mankind. These will find a meeting-place at Nuffield College, but they will only form one side of its learned society. They will rub shoulders with the practical men, the politicians, civil servants, and those who handle businesses.

On the one hand are those who study human affairs diligently and honestly but look at them from the armchairs. On the other hand will be those who have to deal with the facts as they come along. Each can teach the other something; and in this new collegiate society should spring up a new way of looking at our social life.

That is not the only object of this new educational centre, which would fail of its purpose if only those whose place in that state of life they had chosen was assured, were its only members. But into its circle will be invited the able young men who have learnt what Oxford, or Cambridge, or any other of Great Britain's seats of learning can teach them; these may here come to round off their education before they start in the world, by contact with the men who have already made good in it.

Such a society gives a new direction to what is ordinarily called learning, by making it directly a branch of our social and public life. It is a self-contained college for the study of the art and science of government, in large affairs and in small, from the government department to the manufactory.

Viewed in this way, Lord Nuffield's scheme is seen to be an enlargement of the idea that education does not end with schooldays, but should begin there, and be carried on by every one throughout life. If we are not learning we are slipping back, for the world is always moving on, and we ought to move with it.

When its founder launched the scheme, he said rather surprisingly, but very truly, that giving was not an easy thing. What he meant is clear. It is hard to give in the best way so that the gift shall not be thrown away, but be of lasting use and value. Lord Nuffield is indeed a man not only of great generosity but of great ideas.

Troubled Markets

It is certainly high time that America curbed the speculators who have been playing with the world's prosperity during recent weeks.

It was in America in 1929 that the financial crash began which ruined hundreds of millions.

Now, eight years after, we have seen a fall of a quarter in the price of important American stocks in a few weeks, and this has caused much trouble here. There has been some recovery but grave uneasiness has been excited.

America should surely see to it that her speculators are no longer allowed to behave like pirates; and in such circumstances our own Government might well put a stop to speculation by forbidding purely speculative bargains on the Exchanges.

Hitler on Freedom

When the freedom of a nation is betrayed the best men will be sitting in gaol. Herr Hitler, in prison, in 1924

Danger is Always Near

No motorist would be surprised to read that what impressed the Minister of Transport on the roads was not so much the number of accidents that occur as the number just avoided.

It is true. The narrowness of the safety line on the roads is one of the most nerve-racking factors in our lives today.

It has just come home to us in another way. We were looking through some photographs of the Prime Minister's visit to a film studio, and in one of them the Prime Minister is holding his lighted cigar just above a stretch of celluloid film. No man knows what might have happened if the Prime Minister had dropped the hot ash of his cigar at that moment.

The German Countryside

ON a Surrey common a local citizen has had the public spirit to erect a substantial teak seat in memory of George the Fifth.

It is very comfortable and convenient for omnibus users. It would be an ornament *except for those who use it.*

The seat is always surrounded by cigarette and confectionery cases, discarded tickets, and so on, and often 50 such objects can be counted.

A correspondent fresh from a tour in Germany confirms the evidence that the Litter Lout is unknown there, and that advertisements are banned on the roads and in villages.

Also, as our Under-Secretary for the Colonies is evidently not aware, the litter problem is not known in the Empire, so that there are none of Lord Dufferin's anti-litter cranks in the colonies which his department looks after.

The Sovereign Cure

HOPE and Patience are two sovereign remedies for all, the surest proposals, the softest cushions to lean on in adversity.

Robert Burton

You would not think any duty small if you yourself were great.

George MacDonald

The seed sown on the right day will come up at the right moment.

Bishop W. W. How

A Queer Taste

IMAGINATION goes a long way. A charlady who does not approve of electric ovens has declared that the worst of them is that the food always tastes of electricity.

Tip-Cat

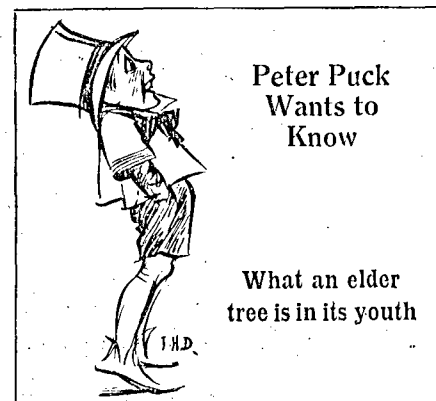
FINGER-PRINTS can now be obtained even through gloves. Especially when there are holes in the fingers.

PHOTOGRAPHS were scattered by lightning. Gone in a flash.

NERVOUS speakers fix their eyes on one member of the audience. A glaring mistake.

A DANCE band leader gets £800 a week. Can always change a note.

IN Germany suits are being made out of wood. And the prices too are stiff.



THE acting of a famous film star is said to carry conviction. And a large salary.

RAVENS don't open their mouths when they speak. Baby ones don't speak when they open their mouths.

A WRITER asks, Why are the trams passing? Because other traffic found them a nuisance to pass.

THE girl who is wrapped up in herself is no good in business. They send her packing.

THE BROADCASTER

C N Calling the World

A HAMBURG merchant has created four scholarships for British undergraduates who wish to study in Germany.

MR William Charles Wilson has left £15,000 to Cambridge University for the study of Psychology.

JUST AN IDEA

It is a terrible thing to waste life, and to come at last to a day when we know we might have done so much more with our time if only we had thought about it sooner.

All God's Creatures

A friend of the C N, who watched a kitten run up the chancel steps during service at Topsham Parish Church not long ago, has sent us these lines.

LITTLE grey cat with the snow-white paws,
So glad at all times and hours
To go to the House of the Lord
with us,
Do you join your prayers to ours?

As you softly pass up the chancel steps
All merry with light and flowers,
Mid the song and prayers of an earthly choir,
Do you join your prayers to ours?

Little grey cat with the snow-white paws,
Pray on to the heavenly powers,
For I think you see with those lambent eyes
With another sight than ours!
C. B. L. H.

When Flying Will Be Safe

PERHAPS it is unfashionable to talk of flying as still dangerous, but one of the bravest American pilots, Kenneth Collings, does not think so.

The pilots flying passengers on the American lines, he says, average 32 years old. At that age men in normal occupations die at the rate of three per 1000 every year, and the air-pilots die at the rate of 25 per 1000.

As these pilots only fly a little more than 800 hours a year on the average, less than a tenth of a year, a little simple arithmetic shows that an hour spent as a passenger-carrying pilot is about 20 times more likely to be fatal than an hour spent in normal occupations—say 2000 hours a year.

Mr Collings quotes another famous air-pilot, who put the matter thus:

When a pilot who is in trouble can push a button and switch off the law of gravity, then flying will be safe.

Peace

THE cause of peace is not the cause of cowardice. If peace is sought to be defended or preserved for the safety of the luxurious and the timid it is a sham, and the peace will be base. War is better, and the peace will be broken. If peace is to be maintained, it must be by brave men, who have come up to the same height as the hero, namely, the will to carry their life in their hand, and stake it at any instant for their principle, but who have gone one step beyond the hero, and will not seek another man's life—men who have, by their intellectual insight or else by their moral elevation, attained such a perception of their own intrinsic worth that they do not think property or their own body a sufficient good to be saved by such dereliction of principle as treating a man like a sheep.

Ralph Waldo Emerson

Surely We May Endure

If God bears with the very worst of us, we may surely endure each other.
Sir Walter Scott

THE PROBLEM OF THE BALEARIC ISLANDS

The Balearic Islands, Spain's outposts in the Mediterranean, have been prominent in the news. Their future ownership is of international importance. Not only do these islands command the route from the south of France to the French colonies of North Africa, but they are close to the highway through the Mediterranean used by all ships making for Suez and the Far East. Here is a quick glance at these islands and their history.

ENGLAND ought never to part with this island, which will give the law to the Mediterranean both in time of war and peace.

Thus did General James Stanhope write home to Queen Anne's Secretary of State after he had in a swift campaign of 15 days captured Minorca from Spain. He had acted on a suggestion by Marlborough, who had realised that his own victories over the French would be of no avail if the English armies in Spain failed, and that therefore a secure harbour in the Mediterranean where the supporting British fleet could winter was essential.

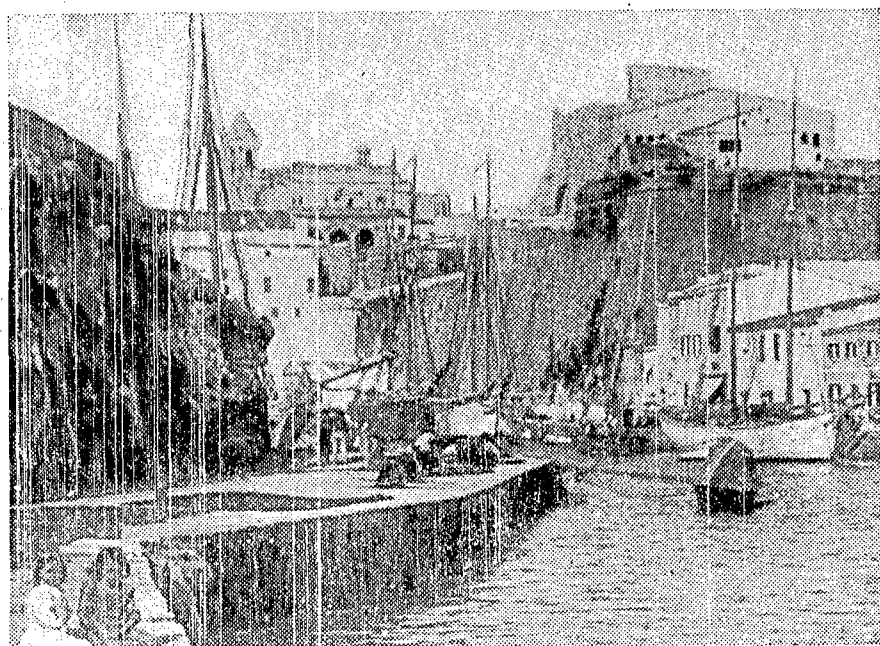
When Minorca Was British

James Stanhope took its harbour, Port Mahón, and ever since, our Earl Stanhopes have borne the title of Viscount of Mahón. From 1708 until 1756 this Balearic Island remained a British possession. General Richard Kane, the Irishman whose tactics so influenced Wolfe, built its first road; he died there in 1737 and lies in St Philip's Castle.

It was the sudden attack on this castle by the French in 1756 which led to the tragic fate of Admiral John Byng, who failed to relieve the island. Restored to England in 1763, Minorca was captured by France and Spain, General James Murray resisting to the end, 20 years later. It remained Spanish until after the Battle of the Nile, when General Charles Stuart won it back without the loss of a man. At the Treaty of Amiens, however, the island was finally returned to Spain.

The Balearic Islands, of which Majorca and Minorca retain their Roman names (meaning Greater and Lesser) form two groups of some four big and eleven smaller islands lying from about 60 to 160 miles off the east coast of Spain. Ibiza and Formentera are third and fourth in size, and all are inhabited.

Their first civilised inhabitants were probably Greek colonists from Rhodes, and the name comes from the Greek word for slinger, the inhabitants being long famed for the use of the sling in warfare. The men of the Stone Age lived here and some of their great monuments remain to this day, but the islands really come into history with the Carthaginians, who built towns on their



A picturesque corner of Port Mahón, Minorca's capital

shores, Port Mahón retaining the name of the famous family of Mago.

When Carthage fell thousands of Roman and Spanish colonists were taken to the islands on which they planted olive groves. The Roman aqueduct at Pollensa stands for a civilisation which lasted five centuries, when the Vandals took possession for 350 years, to be succeeded by the Moors, who brought great prosperity to the islands. It was the Moors who solved the water problem by building huge reservoirs to conserve the winter rains for the dry season. But not content with a flourishing trade

with Europe and Africa, the people of this independent Moorish kingdom took to piracy, so a pope organised a Crusade against them, the Catalans leading it, and eventually King James the First of Aragon expelled the Moors in 1232, and placed his son on the throne. A few years later the islands became entirely Spanish, with the wealthier classes speaking Castilian and the poorer a Catalan dialect.

Rising like emeralds from the blue waters of the Mediterranean, these islands have a beauty which lingers long in the memory of all who have

visited them. Until the catastrophe of the Civil War one or other of the islands was always visited by pleasure liners cruising in the western part of the Mediterranean. Not only have the bigger islands coasts of infinite variety but the interior is rich in scenery as surprising as it is impressive.

Majorca, for example, is mainly a limestone island, reminding an Englishman of the dales of Derbyshire, but on a far grander scale, for the island is as big as Wiltshire. Parallel with the north-west coast runs a range of mountains reaching in Silla de Torrelas over 5000 feet, sheltering the rest of Majorca from the cold winds so that trees and plants grow luxuriantly and the earth brings forth its fruits in abundance from a soil which is exceedingly fertile.

A ride over this range from Palma to Soller is one of the most thrilling in Europe. At first we pass through an avenue of laburnum and plane trees, which are succeeded by miles of ancient olives said to be the oldest in the world, knotted and knarled, twisted and bent, like gigantic monsters in elfland—an eerie journey indeed by moonlight. But by day we look beyond their strange ancestors at the terraces of younger olives on the hills, which remind the traveller of the tiers of vines in Rhineland. The road soon becomes a corkscrew of 29 turns, and when it drops down from the summit to Soller it twists no fewer than 31 times as it runs on the edge of precipice below precipice.

Besides the olive the almond tree is cultivated in profusion, while oranges and lemons, figs and pomegranates, locust beans and grapes are also exported in abundance.

Before the Civil War the Majorcans were a carefree people, more old-



The port of Palma, capital of Majorca

fashioned even than the people of Spain. With all their primitive simplicity the peasants are spotlessly clean. There are few flies or mosquitoes, possibly because of the merry little gecko, a lizard which is domesticated and runs up the cottage walls to feed on flies. Even the pig is a clean animal in Majorca; it is a slim and lively black breed, sharing the freedom enjoyed by the goats which here are bronzed and big. The dogs too are unusual, some with big heads and tufted tails, the rest of their woolly hair having been shaved off in the spring; others resemble the bloodhound and are orange-coloured and very strong. Cecil Aldin, who painted so many dogs, lived in Majorca and admired them.

A Cathedral By the Sea

Palma, the capital, is entered from a magnificent harbour, in shape like a scimitar, and dominated by the many-pinnacled cathedral which has stood on the seashore since the 13th century and contains the tomb of James the Second of Aragon. The town is full of beautiful buildings and it is said that its shoe-shops display the most elegant footwear in the world, the produce of a local industry.

Many an artist and writer has found a home in this island, and lovers of music recall that it was in a monastery garden among the hills that Chopin composed some of his loveliest works.

Minorca, 290 square miles in extent with about 40,000 inhabitants, is less fertile because it lacks a mountain range to shelter it from the north. Agriculture is the chief industry, but fine marbles and porphyries are quarried. It is its wonderful harbour, a deep three-mile inlet on its east coast leading to the town of Port Mahón under the hills, which gives Minorca its importance. Strongly fortified, this naval base is the eastern spearhead in the defence of Spain. As to the shelter it affords, there is an old rhyme which says that the four best harbours in this inland sea are June, July, August, and Port Mahón. Lying almost due south of Marseilles and north of Algiers, about midway between them, as shown on our map, it is natural that France is anxious about Port Mahón's future.

FROM THE HEIGHTS OF THE SKY

Professor Auguste Piccard, the stratosphere balloonist, is designing a balloon in which he hopes to reach a height of more than 20 miles. Bound to the earth on which he treads, Man never ceases to escape from his limitations in order to scale the heights or plumb the depths of his planet. Here a scientist discusses some of Man's achievements.



Nor yet has man climbed Everest, but he has flown over its summit. In fact, by aeroplane he has reached nearly twice its altitude, and in sealed balloon he has ascended almost to two and a half times its height above the level of the sea. The depths of the sea are beyond his reach. Professor Beebe, in his steel sphere, got down little more than half a mile; but the Blake Deep off Porto Rico in the Atlantic is more than five miles down, and there are other depressions in the ocean floor: the Tuscarora Deep off Japan, another off the Ladrone Islands, and, deepest of all, the 32,088 feet ocean sink, 40 miles east of the Philippines, which dips lower into the earth's crust than Everest rises above it.

The Terrific Pressure Deep Down in the Sea

THESE can never be plumbed by any human being because of the terrifying pressure of 15,000 lbs to the square inch of the water above; and it is only by the vast ingenuity of modern sounding apparatus that these depths can be revealed and recorded. The deep-sea cables, laid as far as possible on the plains of the ocean, at depths often over three miles, are a still more striking tribute to human invention.

The earth's crust is as impenetrable as the ocean. The St John Del Rey gold mine in Brazil, 8051 feet deep, is one of engineering's achievements in this downward direction; and in Mexico there is an oil-boring 10,600 feet deep. Sir Charles Parsons, the inventor of the steam turbine, once said that a boring 14 miles deep would take many years to make and cost many thousands of pounds. He was probably the only

engineer who thought the project feasible; and the only profit in making it would be that it might reveal a good deal more about the increasing temperature and pressure as the boring went lower than can be arrived at by theory and arithmetic at present.

Faced with so many physical disabilities in his search for knowledge in these directions, Man has made superb efforts to get at the truth in other ways. We may follow his inquiry into the atmosphere above him first of all. What does he know about that? Before his planes and sealed balloons were so competent he had to scale the heights of the atmosphere by sending up pilot balloons to follow the clouds and bring back information. They revealed to him the existence in the atmosphere of the stratosphere, which is a peculiar belt in it at a height varying from between seven and eight miles.

The sun sucks up water from the oceans and turns it into vapour. These vaporous clouds, born into an atmosphere growing colder with height, make use of such surroundings to ascend. They condense some of their vapour into rain drops, sacrificing thereby some of their own heat, but at the same time getting a leg up. The water vapour they carry is in fact their gas-engine, steam instead of petrol. This water vapour engine carries them higher and higher, but at last it stops working and they come to an unseen barrier. This is the ceiling of the lower atmosphere, the floor of its upper deck, the stratosphere.

Though so airy, it stops rising air as finally as if it were a sheet of flexible steel. Clouds may get up to

it in a few hours or days. They may take months to come down again, but they will get no farther into the almost windless corridor beyond. There some compromise has been made between the sun's heat reflected from the earth and the growing cold of the upper atmosphere. Beyond it, in those regions where the atmospheric mixture of gases grows thinner and thinner, it may be that the oxygen, nitrogen, carbon dioxide, and possibly hydrogen or helium, separate into layers. It may also be true that on the confines of this thinning atmosphere, which may extend 300 miles upward or even farther, the temperature not only ceases to fall, but rises to a degree sufficient to melt some metals. These are speculations which have defenders, but are far from being proved, and at the present time the chances of sending up either man or instrument to verify them are remote.

But fine efforts to get into the stratosphere and beyond are to man's credit, and any day they may be surpassed. The feat of Captain Albert Stevens and Captain Orville Anderson in piloting a balloon rising from Dakota, U S A, to a height of 72,395 feet, more than 13½ miles, is recent. The aeroplane flown by Flight-Lieutenant Adam to 53,937 feet holds the record till now of what a flying man and a flying machine can do.

These Argonauts of the air can bring us down much we seek to learn of how the stratosphere behaves above its lower limit of seven miles, but for fuller information we may have to depend for some time to come on the pilot balloons carrying up automatically-recording instruments. These pilot balloons have reached heights which their instruments record as 22 miles. A new kind of sounding balloon carrying with it a small wireless-sending apparatus, to broadcast the information that it is gathering, has been described in the C N. It shows the path to be followed by scientists in future inquiry.

What We Have Learned From the Aurora Borealis

OTHER boundaries in the sky have been marked out by observations of a different kind. The Aurora Borealis of the northern hemisphere (which was noted this autumn as far south as Cornwall) and the auroral curtains of the Antarctic furnish us with a good deal of information. Their limiting height above the surface of the earth has been calculated in various ways, and it is certain that their illumination takes place in a rarefied atmosphere stirred to activity by electric discharges as real as, though less potent than, the thunderstorms in the lower reaches.

The auroral electric discharges occur at the height at which meteoric fragments, impinging on the earth's path, are set alight by friction with the earth's gases, and show that the atmosphere extends from 100 to 150 miles. It may reach a height of 300 miles; and lately evidence has come to hand to show that it stretches, thinly, out farther.

The dry and almost windless corridor of the stratosphere is the first invisible barrier of the sky. But in it

and above it are other barriers of a totally different kind. They are corridors, of varying and uncertain dimensions, along which an electric current can flow, because the particles of gas in them have become electric carriers. They have arrived in this state from two causes. The earth, our greatest magnet, spinning like a titanic dynamo, throws off electric particles and surrounds itself with a field of magnetism. A picture of its action may be arrived at by any schoolboy who has seen the way iron filings arrange themselves in curved lines about a magnet, and cluster round the poles.

Reflecting Layers That Help the Wireless Waves

THE sun is also a spinning magnet, and at times of great disturbances fires off some of the electric particles it is distributing toward the earth. They do not reach the earth's surface, but join the other electric particles already in and about the atmosphere to make a yet stronger envelope of conducting electricity about the globe. The first hint of the existence of these conducting belts was given when Marconi sent a wireless signal across the Atlantic between Cornwall and Newfoundland. The wireless messenger presumably went in a straight line. But the globe is curved. How did they get round its bulge?

The answer, at last found and proved, was that as they were broadcast in all directions, upwards as well as lengthways, they hit against something in the sky which reflected them as from a mirror, and sent them downward and on again. Such a reflector could only be an electrically conducting area in the sky. So it was proved to be by Heaviside in England and Kennelly in America, and thus the Kennelly Heaviside layer came into knowledge, 50 miles above the earth's surface.

Others of these barriers to the wireless waves have followed: Appleton's layer, Barnett's layer, both much farther out; and this year several much lower down which will reflect the short waves of television have been found. Finally, when last year it was made known that wireless fade-outs occurred sometimes when there were violent outbursts of gas on the sun it was shown that there was probably an electric barrier at a height of 350 miles above the globe.

An interesting fact about these barriers which hold up the wireless waves is that just as a wireless wave led to their discovery, so the waves fired from a sort of wireless gun are employed to find out exactly where the barriers begin. These long and delicate inquiries reveal that the whole area of electric conduction in the sky is continually changing in intensity and height; but as it is found as far out as 350 miles we may assume that the atmosphere extends to the same distance.

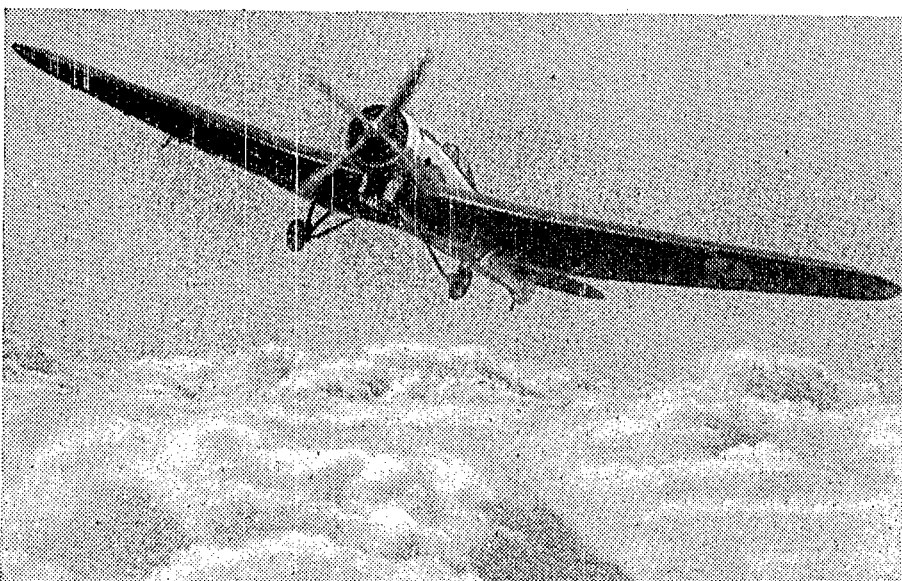
The process of laying the submarine cables has led to the greatest extension of our knowledge of the floor of the oceans, but scientific exploration has added much to it. Notwithstanding its immense gulfs, which have been created either in the regions of old cracks in the earth's crust or not far

TO THE DEPTHS OF THE EARTH

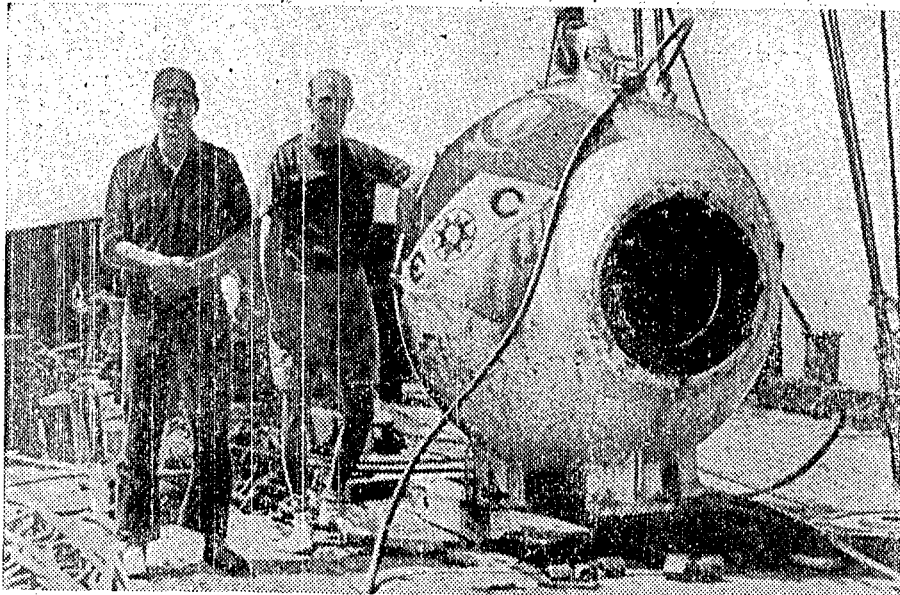
from high mountain ranges near the coasts of continents, the ocean floor is assumed to be very largely one of level plains of ooze. Occasionally it is revealed that this is a rule with exceptions. Off the U.S. Atlantic coast between Cape Cod and Cape Hatteras a sub-oceanic region has been found, split by a hundred canyons like the canyons of the Colorado River in Arizona. Other regions of a similar kind are off the coast between South California and Vancouver; in the Gulf of Mexico, off the Gold Coast and the coasts of India and Japan. But the continents are, in this sense, far more mountainous than the oceans.

Last to be examined, and most difficult to assess, are the depths of the earth. Nowhere does the crust offer to us a weakness which can readily be explored by the resources of engineering. Neither explosives nor the boring machine will do much better than the pick and shovel. The most effective way of exploring the crust and the depths beyond it is one offered by Nature as a gift. It is the earthquake, which is neither kind nor cruel but only obedient to law.

Big earthquakes send the news of their shocks like waves through the world, and every earthquake observatory receives them on its instruments. When a shock, greater or smaller, takes place the waves from it travel straight on or sideways, up or down. If they travel downward they may be reflected. Wireless waves are reflected from a conducting layer above. Earth waves are modified by some surface below which is harder or more rigid than the place in the crust from which they started. A wireless gun firing up toward the mirror of the conducting layer tells



Leaving the Clouds Behind—The Bristol stratosphere monoplane which flew to 53,937 feet



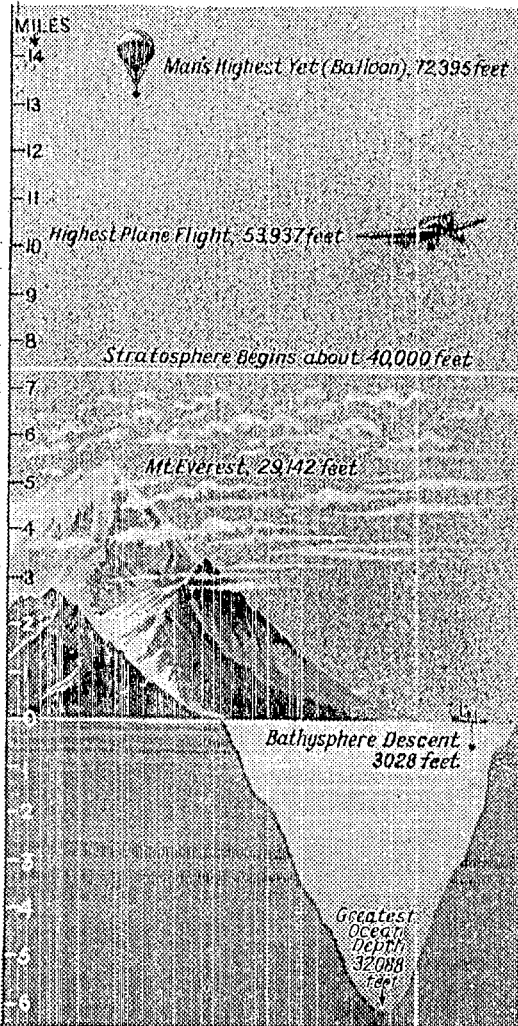
Explorers of the Ocean Depths—Mr Otis Barton and Professor William Beebe with their bathysphere

its height by the seconds or parts of seconds it takes to return. The earthquake measurer ascertains the depth of layers in the earth's crust by the time of alteration of the earthquake waves from them. If we could produce an earthquake at will the results might be more easily reached. But as the earthquake, like the wind, bloweth where it listeth, the knowledge is accumulated very slowly, and is subject to continual correction. Its results simply stated are these:

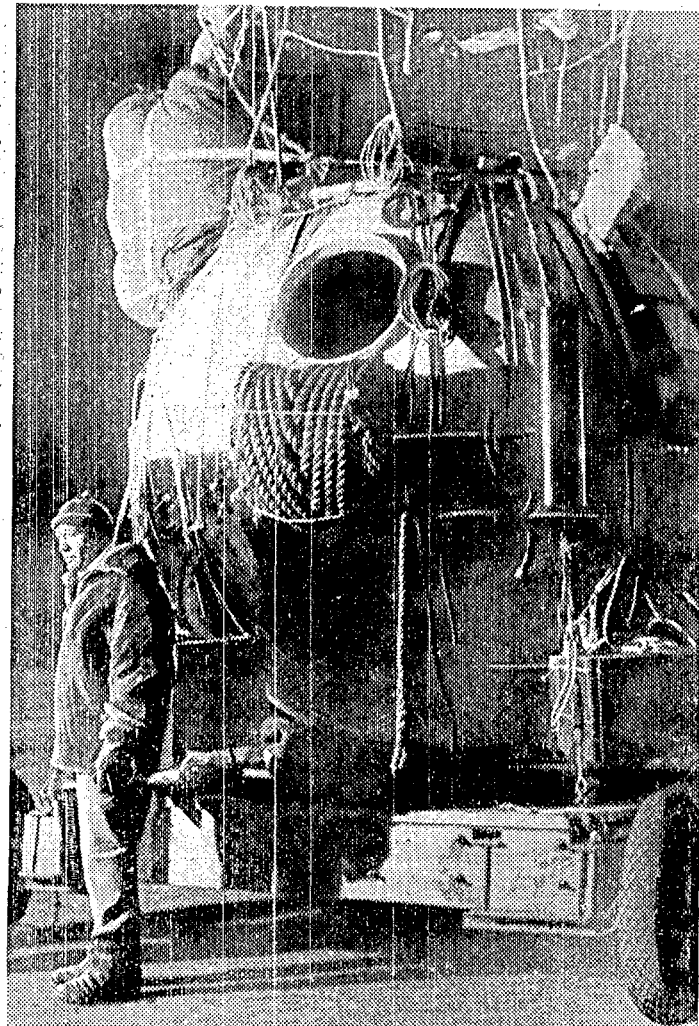
The Mass of Iron Which Forms the Earth's Core

FOR nearly eight miles down beneath the continents is a layer of granite rocks, which in its turn rests on 16 miles of mixed rocks. Below this mixed sandwich there is a mass of rock which is of a hard, glassy kind like olivine. This so-called igneous rock of fiery origin continues downward for 200 miles, when, as the earthquake shows, some sudden break or change appears. Some new sort or condition of rock appears, and this goes down to another 1600 miles, gradually increasing in density till, weight for weight, it is half as heavy again as granite.

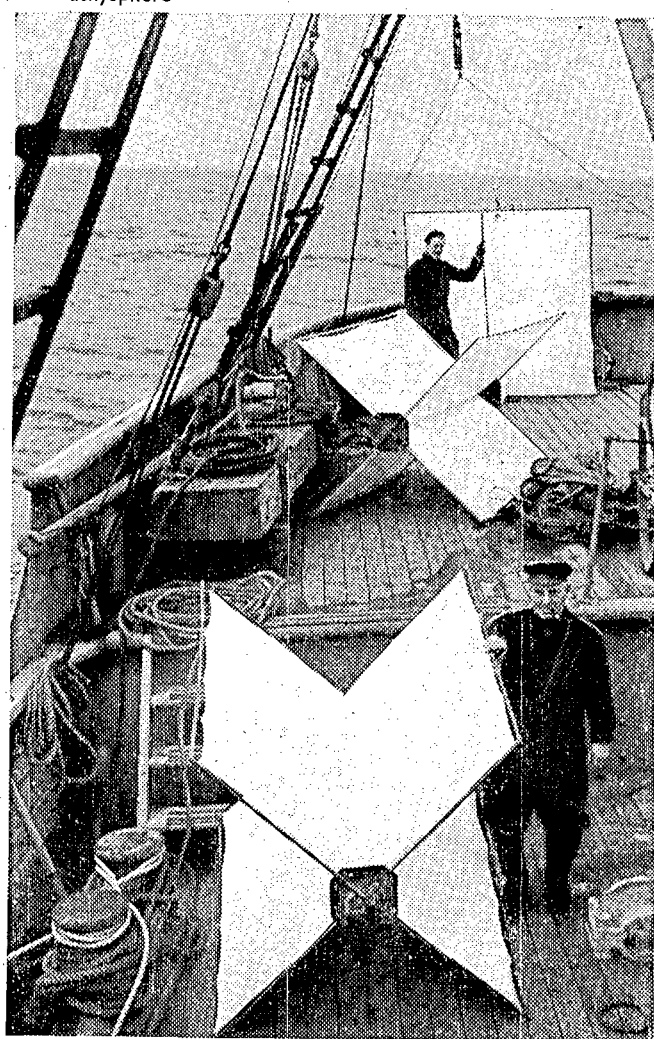
Then another change takes place, for this is the boundary of the earth's core, where the density leaps up suddenly to one of a substance which is ten times as heavy as water. The earth's core, continuing from 1800 to close on 4000 miles, is of iron with a mixture of nickel. We can speak of it as a liquid, because at the enormous pressure exerted by the rocks above any solid body would flow, but the same pressure keeps it as firmly from moving as if it were solid.



The 20-miles gap between Man's highest yet and the greatest depth of his ocean soundings



Explorers of the Stratosphere—Captain Anderson with the gondola of the balloon in which he and Captain Stevens ascended to 72,395 feet



Kite-like frames used by the Royal Research Ship Discovery II for measuring ocean currents

WHAT A WONDERFUL THING IS MICA

THERE is good news for the Old Country concerning mica.

Wherever we look on granite, in its natural state or dressed and polished to form the front of a shop or a mansion, crystals of mica show everywhere. When we stir the anthracite stove it is through the mica window that we see its flames. It is mica that covers the opening through which we peep into the heart of the furnace that is reducing metal to fluid. It is mica that forms the so-called talc globes of incandescent gas-lights. Mica, most perfect of insulators, withstands a discharge of a thousand volts for every thousandth-inch of its thickness.

Perhaps there could have been no electrical industry but for mica, which long depended entirely on this incomparable mineral for the insulation from each other of the section of dynamo-armature and conductor-coils, for nothing else equals it in resistance to heat and electricity. Every motor-car, aeroplane, airship, submarine, and indeed all machinery which is dependent on

electricity as its prime mover, owes its efficiency to mica.

All these applications of mica, and hundreds of others in science and industry, from the goggles of the airman and the windows in the hoods and curtains of cars to the screens worn by men engaged in sand-blasts, have been possible and a commonplace to British processes; but one feature of mica use had, until now, always been beyond us.

Hundreds of thousands of inner walls in our houses have long been brightened by the sheen and glitter of their wall-papers, a radiance conferred by powdered mica. We had been using mica here since days when America was unknown, when, coming from Russia in the first instance, it was used in our houses as the Muscovy glass of which we read in the Middle Ages. Yet the task of grinding mica and using it to dust our wallpapers so as to give a magic-seeming sheen to the most beautiful of our stage scenery was something beyond us.

For years we had had to rely on a mica powder produced under an American

patent, and in order to use it we had to buy an American product. At last an English mining engineer, Mr A. A. C. Dickson, has devised a process of his own, and we are now able to grind our own mica as well as the clever American has so long ground his.

After searching tests machinery for this purpose has been set up in England, and now a new industry opens to us. Our own trade will benefit, and India will find a new market here for the immense stores of mica debris which have hitherto lain idle about her mines and quarries.

India has been our chief source of supply, and a very romantic industry it is. Some of the mines and quarries lie out in jungle areas, where tigers,

wolves, leopards, and snakes abound; and when tigers have been unusually bold the task of getting to and from the mines has been as hazardous as the voyages of little ships through seas alive with submarines.

The mineral is found with granite, and when it is freed it is a solid mass which skilled hands can split again and again, always with a straight line of fracture, till the block is reduced to transparent sheets as thin as notepaper.

In spite of every care there is waste, and great quantities have lain unused about the source of supply. While for the larger masses the old employments remain to demand more and more, the old waste now suddenly possesses a worth hitherto undreamed of.

The Jig-Saw of 3000 Bones

SCIENTISTS in New Zealand are still busy solving the mystery of the moa.

Hundreds of years ago this giant bird roamed the islands; then it became extinct. Today skeletons of the moa are found in all sorts of odd places, and men are able to speculate as to why the moa perished so utterly from the land.

In the Wanganui Museum there are now 3000 moa bones which have been excavated from two graveyards of this extinct bird. Wanganui is one of New Zealand's growing cities; it is at the mouth of the Wanganui River, famous for its beautiful bush scenery.

By a great stroke of good fortune deposits of moa bones were found in great numbers at two spots, one nine miles from Wanganui, the other two miles, and four men worked for three

months to recover these bones. Most of the bones had to be hoisted by an engine and derrick from a depth of 21 to 26 feet of liquid mud. Many still remain buried in the mud, but the museum officials hope to discover them, the New Zealand Government having offered £1200 towards further excavations. Already the men at the Wanganui Museum, under the guidance of the curator, Mr Shepherd, have completed the reassembling of ten moa skeletons.

The question will be asked why so many moas perished in one place, and why their bones should be found in the liquid mud of a swampy spring. Perhaps the moa sought refuge there from Maori hunters or from forest fires, or went to a spring to drink and became engulfed. It is a riddle to be solved.

A Wild and Savage Book

It is a hundred years since Carlyle's French Revolution was published.

Few histories have more faults. Few are greater or will stand the test of time like this strange and turbulent narrative which Carlyle himself described as a wild, savage book. It is like a great river rushing through a narrow channel with the foam flung high and the water tumbling over the rocks. But it is unforgettable. It gives us a picture of France which is more vivid than anything else of its kind. At one moment Carlyle is writing a stirring account of the taking of the Bastille, and at another he writes of the sunset on July 14, 1789, of peaceful woods, and of the light falling on reapers in quiet fields.

But for this book Carlyle might have been forgotten in these hundred years. His history was the beginning of his rise to lasting fame. He had already written Sartor Resartus, and though it had been greatly admired by a few it had not impressed the reading public. He was 39, married, and settled in London. He had about £200, and that was all. He decided to make a bid for fame with his French Revolution. He hoped it might establish him as a writer, but if it brought him no success he had decided to emigrate to America.

He set to work with a will. He read much. He made notes. After great labour he began writing his book, and he tells us how difficult he found it, and how hard it was for him to get even one page to satisfy him. But he kept on. He worked day and night, undaunted; and having finished the first volume he sent it to his friend John Stuart Mill.

Mill had suggested to Carlyle that he might write about the Revolution, and had lent him books dealing with the period, yet it was this friend who was to give Carlyle a blow which might easily have broken a lesser man. *Mill's housemaid used Carlyle's manuscript for lighting the fire.*

Few stories are more dramatic than the story of how John Stuart Mill, overwhelmed by this tragedy, went to Carlyle to tell him the bitter news that the first volume had been burned. Carlyle was stunned, but he was not defeated. He finished the remainder of his book. He rewrote the lost volume, completing it in the early months of 1837, and then at last he sent the book to the printers.

Though it was not an immediate success Carlyle's French Revolution established his reputation as a great writer. His work had not been in vain.

Dan Tucker's Descendants

IN spite of the scars and gashes inflicted here and there on our countryside, we are to be assured of some remainder of beauty by the preservation of the hedges that bound our fields.

In Essex, a county of beautiful ways, the old art of hedge-laying is being re-learned. It does not suffice simply to plant hawthorn, or whatever the hedge is to consist of; an artist at the work must "lay" it. He is a sort of botanical weaver, who causes long strands of growth to run horizontally through the hedge, so giving it a strength and thickness that no mere vertical development of the bushes could produce.

Hedgers and ditchers were once a numerous community. We ought to honour their memory, for it was they who made the splendid hedges which give England a character distinguishing it from all other lands. They did not make much money by their craft, apparently, for the only one who lives in fame is Dan Tucker, the hero of the nursery rhyme, who, "if he never grew poorer, never grew richer." His race, however, has died out in Essex; where,

in the new enthusiasm for well-laid hedges, it has been necessary to import hedgers and ditchers from other counties to teach the local men the art, they have too long forsaken.

We hear from time to time complaints that our hedges bring loss to the farmer, loss in the cost of maintenance, loss through hedges acting as sanctuaries in which weeds flourish and spread their seeds far and near. But in hedge-growing areas there is no boundary better or cheaper, no more reliable means of keeping sheep and cattle within bounds.

Visitors from the Dominions and from abroad love our hedges. Said two young Australian scholars when visiting England for the first time, "What a beautiful picture it is as we travel by train to London; how cosy the hedges make all your fields look. At home we see no boundaries, but miles and miles of posts and wire."

In Europe we miss the hedges just as badly, for there field is joined to field, mile after mile, divided only by beaten tracks with never a growth of hawthorn to break the dull monotony.

Whitehall Removes a Slag-Heap

ABOUT four years ago the Civil Servants of the headquarters of a Government Department in Whitehall wished to show in a practical way their sympathy with men and women who were then enduring the hardship and misery of unemployment.

To find a community which had long been struggling against depression was not difficult, but to select only one from many required much time and thought. At last a village was found in which unemployment affected almost every man, woman, and child, and there, where the people had good reason for thinking no one cared for them or troubled about them, the Civil Servants determined to show their friendship.

They wanted to be friendly rather than charitable. They wanted to be practical. A huge slag-heap towered above the poor houses, an unsightly thing which everyone detested. The Civil Servants said it must go. They bought it, and then made a bargain with the men and women who lived in

its shadow. They said that if the men would level the slag-heap they would provide the money and the tools as well as the clothes needed for the work. They said that if the women would cook one good meal a day for the men who worked they would pay for the meal.

They kept their word. The scheme was organised. The men and women were willing to work. The slag-heap grew less day after day and month after month. Ugliness gave place to an open space. Useless ground became a playing-field for boys and girls, with gardens for older folk. Nor was that the end of the matter, for when the playing-fields and gardens were opened two years ago the Civil Servants went on to pay for a hall, which the villagers built.

Thus a group of earnest and kindly people in London have carried through a great experiment, not only making beauty out of ugliness, but doing much to establish mutual respect and goodwill between people who have had good fortune and people who have not.

William Woods and His Bear

WILLIAM WOODS has a bear; it followed him one day, and nothing now except its meals will keep the bear away.

This is the story of their acquaintance which has ripened into such close friendship. Two years ago in a construction camp near Banff, Alberta, a two-year-old black bear which had strayed in was so far tamed by the men that it used to come regularly to be fed. Its first friend was William Woods, the caretaker.

The camp closed down when winter came. The bear watched the men depart, turned its shaggy black back on them, and went off to the woods. It probably slept through the winter, and all last year was not seen again.

But one day a few weeks ago a handsome four-year-old bear came into another camp where William Woods was working. It came straight up to William. The two looked hard at one another, and if William did not recognise the bear it was clear that there was something about him that the bear liked. It was the warmth of recognition. William tried it with a biscuit. Bruin sat up. Undoubtedly it was the bear of two years before.

It went about with William as if it had found a long lost brother, and when camp was moved again William and the bear moved with it. It likes the camp, it likes the men in it, especially the cook; but it loves William.

THE FLYING HORSE

Colossal Suns of Whirling Fire-Mist

By the C N Astronomer

The Great Square of Pegasus is now the most arresting star-group in the evening sky.

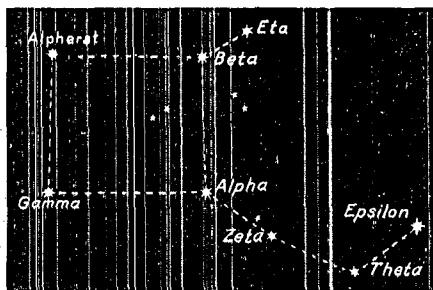
It is formed by four stars of about second magnitude which are situated only a little way to the south of overhead between 8 and 9 o'clock. They will be easily identified with the aid of the star-map, which shows that the entire constellation of Pegasus is very much larger than the area covered by the famous Square. Moreover, the star Alpherat, which is just on the border of Pegasus, represents the curl covering the left ear of the lady Andromeda, so this star has been assigned to her and is also known as Alpha Andromedae.

Upside Down

The head of Pegasus, the Winged or Flying Horse, is represented by the stars Theta and Epsilon, Epsilon being situated at the nose; as Alpha and Gamma represent a wing, it can be seen that Pegasus is presented to us as flying inverted with feet almost overhead. Pegasus has always been thus shown. The anomaly is due to our point of view from northern latitudes; were we observing from the more southern latitudes of Egypt or Babylonia the constellations in their positions of many thousands of years ago the inversion would not then appear.

Of greatest interest are the stars Beta and Epsilon, for they are "giant" stars that would cover most of our sky at midday were they as near to us as our own Sun. Fortunately they are not, Beta being 12,900,000 times farther away, at a distance of 204 light-years, while Epsilon is 116 light-years distant, and so 7,366,000 times farther away than our Sun. Epsilon, though much nearer than Beta, appears no brighter because it is much smaller, its actual diameter being 86 million miles. Beta has a diameter of 147 million miles, that is 170 times wider than our Sun. Imagine such a furnace of whirling fire in our sky!

Beta is a sun in a much earlier stage of stellar evolution than Epsilon, being



The chief stars of Pegasus

of a reddish M type, whereas Epsilon is of the yellowish K type and thus approaching the age of the golden Arcturus. This means that Beta is at a lower surface temperature of about 3000 degrees Centigrade, as compared with Epsilon's 4000 degrees and our Sun's 5600 degrees surface temperature. But while our Sun is a dense "dwarf" that is dying down and gradually cooling, Beta and Epsilon are rarefied giants that are growing hotter. An idea of their relative densities may be gleaned by comparing the density of our Sun, of which every cubic yard weighs, on an average, about a ton, according to Sir James Jeans. Now, on this scale, a ton of the light gaseous material composing Epsilon would fill a large cathedral, and that of Beta one of the largest. It is like comparing a cupful of water with a roomful of steam, and just as the roomful of steam will eventually condense into a cupful of water so these colossal suns of whirling gas will condense, long ages hence, into comparatively small suns, similar to our own.

It has been found, where it has been possible to weigh, by means of another body, these giant suns, that their weight

ROPES

We should not get far without ropes. There are cords, guy-ropes, and wire ropes, cables, hawsers, and halyards. We have clothes-lines and life-lines and skipping-ropes. We have lassos which cowboys still use with astonishing skill, and we have ropes for driving machinery.

Ropes are used every day. We see them on ships; ropes are found on every steamer, they are found in every harbour and on every dock. Flags are run up to the masthead with ropes, and ropes are used for towing barges. Builders would hardly know how to do their work without ropes. Mountaineers link themselves together with ropes, and in Yorkshire the Bampton cliff climbers are lowered 400 feet when gathering seabirds' eggs. Our coasts are all the safer because at every danger point there is a rocket apparatus enabling men to throw a line to shipwrecked sailors.

Footpaths in the Sky

India has rope bridges, frail links from one side of a broad river to the other. Often they are so high above the water that it requires much daring to venture along the swinging footpath in the sky. Rope ladders are found by every ship's side; the pilot uses one for going down to the launch which takes him back to port.

It is with ropes that most of the bells in our land are rung. They hang in thousands of towers, and every Sunday the ringers pull the ropes and send the echoes flying from hill to hill.

It was with the aid of a rope that St Paul was lowered down the walls of Damascus; and in the Book of Kings we read that the servants of Benhadad said Let us put sackcloth on our loins and ropes upon our heads—reminding us of the famous incident at Calais when six of the burghers appeared before Edward the Third with ropes round their necks as a sign of submission.

Rapunzel's Hair

The most beautiful rope of which we may read must surely have been the one made of Rapunzel's hair, which was so long that it fell in a golden cascade from the window of a high tower to the ground; and the strangest stories that have ever been told about ropes are those which describe the Indian rope trick.

But the tight-rope is the most wonderful of them all. Unless we have watched a tight-rope performer we can hardly imagine all the skill and practice needed for his astonishing feat. It needs a clear brain and a steady eye and nerves of steel to be able to do the remarkable tricks which Charles Blondin seemed to do so easily. Not content with crossing Niagara by walking a tight-rope, he went on to carry a man on his shoulders. Then he amazed everyone by wheeling a man across in a wheelbarrow.

Continued from the previous column

is not so very much greater than that of our little Sun, Beta Pegasi having been thus computed to possess no more than nine times more material, and therefore mass or weight, than our Sun, though Beta is some millions of times greater in size or volume.

Its substance must therefore be at least a thousand times more rarefied than terrestrial air, yet it glows with this terrific radiant heat, a colossal whirling mass of fire-mist, every square inch of surface pouring out more heat than an equal surface of a Bunsen burner. Yet these are relatively cool suns working up to far greater volumes of radiation and temperatures, from ten to twenty times greater, in the course of many millions of years to come.

G. F. M.

Little Portraits

CAPTAIN COOK



He stood over six feet high and was thin and spare. His head was small, his forehead broad, his dark brown hair neatly rolled back and tied in the fashion of the time. His nose was long and straight. His cheekbones were high, and his eyes were brown and small, quick and intensely piercing under large, bushy eyebrows. His striking and austere face was strengthened still more by the firm mouth; and there was in his look everything to indicate a man of remarkable patience, resolution, and indomitable courage. It has been truly said that he had a face worthy of a great navigator.

We may picture him on his ship as a tall, spare sailor, rather severe, but entirely capable, self-reliant, and trustworthy. Strong and healthy all through life, he was inured to labour and to hardship. He could endure privation or face rough weather. He never wished for luxury or ease, preferring the hard life of a mariner, and anxious only to have opportunities for work. He was never tired. A born commander, he rarely betrayed emotion, but those who knew him intimately found that beneath his austere exterior was a kindly heart.

Bottle or Carton?

The statement that there are 250 million milk bottles in use prompts the inquiry, Why use milk bottles?

An excellent milk carton has been invented, and its universal use would be another good step on the road to cleaner milk, for the carton is used only once.

The milk bottle is frequently used after the top has been chipped and thus made difficult to clean thoroughly. Moreover, as C N readers know, 13 million milk bottles are lost every year.

At the headquarters of the Milk Vessels Recovery Company at Tottenham are to be seen bottles from every country in the world, some marked in unknown tongues, some of quaint shape, but all returnable. The dustbins are not only to blame; many bottles are collected by the wrong milkmen, and these all need sorting out, for it is illegal to use another milk-distributor's bottle. It is an unsatisfactory business of which the carton seems to be the solution.

New Idea For a Watch

A new idea for a watch has been thought out by a Swiss maker.

He has made a shock absorber which protects the balance-wheel from injury so well that, though thrown several hundred feet from an aeroplane, watches which had been fitted with these shock absorbers were retrieved and found to be quite unharmed.

TOP FORM MAKES A BOOK

The Encyclopedia of Middleton

BETTER THAN SLUMS

A class of boys under 15 in a Yorkshire school has just produced a book which is unique in its way and well worth the attention of other schoolboys.

It is now 16 years since Leeds City Council began its Middleton Housing Estate on the plateau to the south, and ten years since the fine Council Schools were opened in this garden suburb.

Middleton has grown since the war from a tiny hamlet to an ordered little community of 10,000 people in 2800 modern houses. It has over a dozen grocers and five butchers, three news-agents, two post offices, and two hair-dressers. At the two post offices 1356 wireless licences and a thousand money orders are issued annually, while the number of letters received each week by night mail has risen from about 100 in 1922 to 9000.

Written By Boys

We have not assembled this information from guide books (official or otherwise), but have selected all these items from the little sixpenny book written and illustrated by the boys of the top form in the Council School (An Economic and Social Survey of the Middleton Estate).

Citizenship, the complicated business of living helpfully and harmoniously together, is the final object in all history lessons, and in Middleton the boys have done something more than learn about it from a textbook: they have made a practical study of the subject on the spot.

Here is the result, a book with 22 chapters by 24 authors, not counting the two schoolmasters who have written a foreword explaining the idea. Working either singly or in groups, these boys have described clearly and simply, with diagrams and maps, the history and geology of this housing estate, its roads, transport, postal and municipal services, library, and recreational activities, its churches and schools, child welfare, nursing, and other social services, and finally its political representation.

The Only Inn

As an example of the character of these essays we may quote this account of the Estate's only inn:

Although the Middleton Arms is not exactly a club, it is something more than a public-house. It was one of the first of a number of splendid establishments erected on the outskirts of Leeds which have taken the place of the ordinary licensed houses, and aims at providing varied entertainment and opportunities for social intercourse besides the consumption of refreshments.

The Middleton Arms, which was completed in July 1925, is a striking building with a splendid frontage. Besides the usual bar there is a spacious lounge, tea room, buffet bar, snack bar, and oyster bar. Upstairs there is a ballroom which has been the scene of many social functions connected with the Estate.

Making Good Citizens

We like also the story of how the Recreational Club was formed; how two friends got the idea while chatting one evening under a street lamp, called a public meeting, and soon had 600 members and a fine building which now belongs to the British Legion.

But the most remarkable thing of all is that this Estate was built mainly for the inhabitants of the old and insanitary areas in Leeds. Not all those living on the Estate have come from slum areas, yet this book proves that if we will set people in healthy surroundings the boys and girls will grow up happy and intelligent young citizens.

The C N sends them its congratulations and good wishes, especially the Middleton encyclopedia-makers.

OPIUM IN THE FAR EAST

Manchukuo's Evil Traffic

The report of the Committee of the League of Nations on the traffic in opium and similar drugs discussed in the Assembly last month revealed a serious situation in Manchukuo.

In Harbin and Fuchiatien, which between them have a population of one million, there were lately one hundred licensed opium saloons and one thousand heroin dens, and nearly a quarter of the inhabitants were addicts. The drugs consumed there had been manufactured in the Japanese concessions.

In the Japanese concession at Tientsin a single street was found to contain more than fifty heroin shops where the drug could be bought for one-tenth of the price it now fetches in Egypt.

America and Egypt are very much alive to the danger, but smuggling is extraordinarily easy. One supply was found quite recently in what looked like an innocent consignment of sardine tins.

The bare fact is that 90 per cent of the world's illicit drugs come from Manchukuo and the provinces of Northern China which the Japanese are now over-running.

If these facts came solely from Chinese sources Japan might declare them exaggerated and unfair, but the drugs committee of the League of Nations does not rely on China for its information.

Elsewhere the International Conventions have happily led to the limitation of the manufacture of these drugs to medical and scientific needs, but Japan must see to it that the abuses in districts under her control should cease.

THE MEMORY OF CROMWELL

A New Association

A Cromwell Association has been formed, non-sectarian and non-political, to perpetuate the memory of Oliver Cromwell.

Its chairman is a privy councillor, the Rt Hon. Isaac Foot, and among the members are Lord Lothian, Sir Arthur Hazlerigg, Sir Thomas Barlow, Lord Tweedsmuir, Captain Christie Crawford, Mr Harold Reich, Lord Fairfax, Dr J. D. Jones, Dr S. W. Hughes, and Canon Weekes, Master of Sidney Sussex College, Cambridge.

Lord Tweedsmuir, Governor-General of Canada, has, of course, written a masterly biography of Cromwell. Captain Crawford has founded a Cromwellian Collection at Stow-on-the-Wold, and Mr Reich presented the Naseby Memorial, marking the authentic site of the battle. Mr Foot's stout championship of Cromwell is known everywhere.

The honorary secretary of the Cromwell Association is Mr Russell Smith of Coleman's Hatch, Sussex, and CN readers wishing to join (the Editor has already done so) may write to him and send 5s as an annual subscription.

A committee has been formed to consider in what way the purpose of the association can be achieved, and the CN hopes the time may come when it will be able to secure the state burial of the remains of Cromwell in the Abbey, from which they were flung out by Charles the Second.

Road Tests For Young Cyclists

Doncaster children who wish to cycle to school must first pass a road test.

Eighty children recently passed the first test. They were examined in the Highway Code, and tested by means of robots and other traffic signs in an imitation street, set out in a playground.

The Conqueror of Anthrax Has a New Enthusiasm

BRADFORD, the centre of our wool industry, has been honouring a doctor who has risked life and health for 40 years in a war against anthrax, a scourge known in France as the Bradford disease.

The Textile Institute of Bradford has awarded its medal to Professor Frederick Eurich, who is retiring from practice, though he will be devoting his energies still to the service of others as a member of the Howard League, which carries on the splendid prison reform work of John Howard.

At the beginning of this century the Home Office constituted an Investigation Board for Bradford and its district with a view to obtaining a thorough knowledge of anthrax. The disease is caused by a germ, and, though primarily attacking animals, it will enter the human body when broken skin comes into contact with the wool or hairs in which anthrax bacillus or its spores are lurking, and will even attack the lungs if it is inhaled.

This was the first microbe shown, by Louis Pasteur some 70 years ago, to be the cause of a human disease. The great French scientist studied it, finding that birds were not attacked by it owing to their high temperature, and other scientists carried on the work,

endeavouring to reduce the mortality among men and beasts. Yet when the Investigation Board was set up one Englishman in four attacked by this disease died.

Frederick Eurich set to work in a spirit of self-sacrifice, for he knew the terrible risks involved. During the long years he has worked on the problem he has examined 14,000 samples of wool and hair.

By establishing sound preventive methods and by introducing improved treatment of the disease when contracted Professor Eurich has effectively reduced both the number of cases and their fatal effects. He proved that even clean wool harboured the microbe, and he was the first to make a culture of these microbes from the wool.

Finally he found a way of killing anthrax in any kind of wool without injuring the material, a most important factor in so important an industry.

All Bradford and its neighbours came to greet their benefactor at a farewell dinner not long ago, employers and employed, social workers and doctors, and not least the magistrates whom Dr Eurich has often helped in treating difficult types of criminal cases, a work which he is to continue, for Penal Reform has now become the first interest of his life.

A Lesson They Learned in China

THE heroic resistance which the Chinese continue to oppose to the better armed and better disciplined Japanese arouses the sympathy and admiration of all who esteem unselfish valour and devotion to a worthy cause.

A new spirit has been forged in the fires of danger and disaster, and China, so long shattered into rival factions, has been welded into a harmonious nation, consecrated to national service and endeavour. Their leader has told them how bitter must be the sacrifices they will have to face, how grievous the suffering they must endure in the pursuit of that aim if they are to escape bondage and utter overthrow by a merciless and unscrupulous enemy.

The rival generals of the earlier days of this year who are now rallying to the national cause have received no promises of gain or glory; in order that their land may survive in freedom they must fight without hope of profit; they must die, if necessary, without question.

Yet they know how to bargain; they realise the value of the timely gift to secure adequate assistance in time of need, and for 24 centuries they have, in times of perils like these, recalled from their classical literature a true story

illustrating both their national characteristics and sly, penetrating humour.

Four centuries before the Christian Era there lived Chun-yu Kun, one of their greatest wits, married to a daughter of the Prince of Chi State. That State being in danger of invasion, the Prince bade his son-in-law go to the ruler of the neighbouring State and ask him to send an army to his assistance.

In order to encourage his ally to furnish such an army the Prince of Chi gave his son a hundred pounds of silver and ten chariots as a gift for the friendly prince. At this Chun-yu laughed uproariously, and said: "As I was coming along this morning I saw a husbandman sacrificing a pig's foot and a single cup of wine, after which he prayed, O heaven, make my upper terraces fill baskets and my lower terraces fill carts; make my fields bloom with crops and my barns burst with grain! I could not help laughing at a man who offered so little and wanted so much."

The hint was enough; presents comparable with the assistance needed were sent, with successful results. But times have changed; today's heroes are offered nothing but duty and death as an attraction to the service of China.

The Ploughman's 24-Hour Day

THERE have been strange scenes in our English fields of late.

Northamptonshire farmers and their men, and probably others in agricultural areas, have been making a 24-hour day with their ploughing.

Less vexed by the drought which elsewhere had turned the soil to adamant and made tillage impossible, they found the fields ripe for the plough, and, so that not an hour of favourable weather should be lost, when the day men led home their teams out came more men with fresh horses, to plough all night.

The story recalls the wonderful picture in the Odyssey, where Ulysses and his weary companions arrive in their dark ship at "the steep stronghold of Lamos, where herdsman hails herdsman as he drives in his flock, and the other who drives forth answers the call. There might a sleepless man have earned a double wage, the one as neat-herd, the other shepherding white flocks; so near

are the outgoings of the night and of the day."

But Ulysses saw no night-and-day work. The story arises from one of the true romances of old-age travel. Someone in Homer's day had sailed up the western coast of Europe and seen a land bathed in midnight sunshine, so the poet thought the same conditions would apply to the unvisited island in the Mediterranean on which he cast his hero.

Still our night-ploughing would have been almost as miraculous to Homer as the conditions he imagined. The Greeks gave us our word for electricity, but they knew the mysterious force only from the power of amber to attract other bodies. Our fields have been lit by electricity from lamps carried on the ploughs, and that to the Greeks, who knew no brighter light than tiny lamps filled with oil, would have seemed a miracle of the gods.

180 MILLION RUSSIANS

The Great Communist Republic

The preliminary report on the new Russian Census, taken in January this year, gives a provisional estimate of 180 millions.

This gigantic figure will not surprise those who realise that Russia is growing every year by a number of people nearly as great as the population of Scotland.

Before the Great War Russia had 180 million people, but the Tsarist Empire included Russian Poland, Bessarabia, Finland, Latvia, Lithuania, and Estonia. The loss of these territories reduced Russia to 120 millions, so that 60 millions have been added in a few short years.

We ought not to speak of Russia but of the Union of Soviet Socialist Republics (U.S.S.R.). This great Communist Union includes many Communist States, ranging from the great Russian Socialist Federal Soviet Republic in Europe (which has many provinces) to such small units as the Turkoman Socialist Soviet Republic in Asia. Altogether there are some 15 Communist States. The Soviet Constitution takes power to incorporate any State wishing to join the Communist Union. That is to say, all the world is welcome and invited to become Communist.

Fifteen Separate States

The motto of the Union is: Proletarians (common people) of all Lands Unite. Thus the omission of the word Russia from the official title of the U.S.S.R. is not accidental: it expresses a purpose.

This Communist Union, with its eight million square miles of territory, is the greatest governmental unit in the world within a single political boundary line. It wields enormous forces and has the biggest army in the world. It also claims to have the biggest air force, and declares that it is determined to build and maintain the greatest navy.

These 180 millions include many very different peoples, speaking about 100 different tongues. It is a vast and fascinating complex, this Red Empire; the truth about it is hard to come by, and is unknown even to the rulers at Moscow who exercise so ruthless a despotism.

Forgetfulness

There are some five million American citizens who have forgotten the very existence of their banking accounts.

The total amount of this unclaimed money is given as £38,000,000.

Most of the deposits are very small, but there are 65 depositors who could claim 50,000 dollars, or more.

Mr La Guardia, the Mayor of New York, is one of these. When the bank wrote to remind him of his deposit he replied that in fact he had opened an account 18 or 19 years ago when he was in the militia, but that he had quite forgotten all about it.

Congress is considering a bill to enable the Government to take possession of all abandoned deposits of over 20 years' standing.

25 YEARS AGO

From the CN of October 1912

Lifts That Worked Before Caesar. The spade is a great help to the historian. Its latest gift to the world reveals the past life of ancient Rome.

Beneath a rubbish-heap the diggers have found the mighty fountain of Domitian's palace and the foundations of Nero's golden palace.

A stranger discovery still, however, is that of the lifts descending into the depths below the palace of the Caesars. They are older than the Caesars, but are in almost perfect preservation, and one is to be set to work once more.

BETTER THAN THE CAR

The Horse and Pony Revival

There is a dead thing called a motor-car and a living thing called a horse.

Each is a machine, possessing power of movement dependent on the regular supply of fuel to an engine, the lubrication of moving parts, the provision of a radiator, and on great care and attention. But there the likeness ends, for the horse is incomparably more marvellous than the car.

At one time it seemed that the horse must disappear, and happily it is doing so as a beast of burden, as a dragger of heavy loads, and as an instrument of war. As a friend of man, however, it seems to be gaining a new recognition. This year a new demand has appeared for leather saddles and other horse gear.

Horse-riding is reviving as men come to realise that to possess a horse is to fill an instinctive need in human life.

Man, horse, and dog make a glorious trio. And more children are taking to ponies, as so many families move out to the outskirts of towns and riding becomes possible.

The prices of children's ponies are rising, but a Shetland foal can still be bought for £7 or so, and a trained adult pony for £15.

The Aga Khan at Geneva

The presidency of the Aga Khan over the recent Assembly of the League of Nations was a memorable one.

He gave a wonderful reception for the opening of the new Palais des Nations to 2000 guests: the description reads like a scene out of the Arabian Nights.

Perhaps more striking still, he fought the terrible unpunctuality of all gatherings in the life of Geneva. When the clock struck he was in his place and business began. One morning he rang the President's bell, dealt with correspondence, read the order of the day, and called the first speaker by 10.6 a.m.—much to the amused embarrassment of the Secretary, who did not get to the rostrum until 10.7.

In his closing address he quoted the Persian poet: "The children of Adam, created out of the same dust, are members of the same body." When life brings suffering to one of the members all the others are affected also. Oh, thou who art indifferent to the sufferings of thy fellowmen art not worthy to be called a man."

The Millions of Tons Carried About

The second biggest job on our railways is to move the enormous amounts of material used by and produced by the iron and steel industry.

This great trade includes a greater variety of processes and finished products than any other, and, because of the huge quantities of raw materials and finished articles of varying lengths, shapes, and sizes which have to be moved about the country, efficient transport is a vital necessity.

Last year ten million tons of iron ore, 4,152,000 tons of billets and ingots, 5,127,500 tons of iron and steel scrap, 8,027,000 tons of manufactured iron and steel, and 3,461,000 tons of pig-iron were conveyed by rail, making a total of nearly 31 million tons.

What a magnificent thing it is, the scientific and laborious work which produces these fine results! Let us not forget that it goes on all the time, while so many of us are engaged in easier tasks.

THE INDIAN WONDERLAND

Coal Boom in the Tropics

To those unfamiliar with the story of India it seems strange to read of a boom in the coal industry there.

Most of us think of that great land as the home of abiding heat and seasonal deluges; but India extends over 28 degrees of latitude, one extremity reaching far into the torrid zone, the other embracing cold mountain regions where the chief heights are for ever wreathed in snow. Happily Nature has prepared a coal cellar on the spot.

Probably there remains much for the geologists yet to discover, but even now she is known to possess 35,000 square miles of land capable of yielding coal. A land of immense antiquity, India has huge deposits of rock composed almost entirely of fossil life of other ages.

Her forests were from time to time engulfed by the sea and converted into coal. Much of the coal is different from ours, yielding only half, or little more, in power, and so British coal has in the past been welcomed there.

Nevertheless, there must be good coal in India, for not only do they employ it for their own industries, they have markets for it in Malaya, China, and South Africa, all now bombarding India with orders more than she can meet.

So it is not by her coral strand, of which the hymn reminds us, but by her black diamonds that India now commands a place in the industrial history of the time. Her mineral riches are almost inexhaustible. She has abundant iron, which she smelts by means of charcoal into ore of excellent quality; she has manganese, copper, gold, silver, mica, and a host of other precious possessions waiting to be brought to light to enhance her own treasury and the market supplies of the world.

SCHOOL BROADCASTS

Wednesday's World History broadcast dramatises Pliny's attitude toward early Christians in Rome and events 200 years later which led to the conversion of the Emperor Constantine.

On Friday we shall hear about the plot, trial, and execution of Guido Fawkes as a boy or girl of his own time might have heard it.

England and Wales—National

MONDAY, 2.5 Digging and Trenching: by C. F. Lawrence. 2.30 Junior Music: by Thomas Armstrong.

TUESDAY, 11.25 History in the Making. 2.5 Story of the Ant: by C. C. Gaddum. 2.30 Why We Talk: by A. Lloyd James. 3.0 Handel's Chamber Music: by Thomas Armstrong.

WEDNESDAY, 2.5 Constantine Becomes a Christian: by Rhoda Power. 2.30 Microbes that Help the Farmer: by H. Munro Fox. 3.0 Concert by the BBC Scottish Orchestra.

THURSDAY, 11.25 Greece and the Aegean Islands: by P. D. Whitting. 2.5 Our Village—Guy Fawkes Day and Hallow-e'en. 2.30 Making the Law: by Hugh Ross Williamson.

FRIDAY, 2.5 New Homes in the Wilderness: by Captain A. J. Trousdell. 2.30 Guy Fawkes Day. 2.55 More African Folk-tales. 3.15 Talk on next week's broadcast music. 3.35 Philosophy and Religion: by Dr W. R. Matthews.

Scottish Regional

MONDAY, 2.30 Speech Training—Using the Chin: by Anne H. McAllister.

TUESDAY, 2.5 The Birds of the Forest: by A. E. Cameron. 2.30 Poetry—Modern Ballads: by W. M. Clyde.

WEDNESDAY, 2.30 Insects, Man's Greatest Competitors: by A. D. Peacock. 3.0 As National.

THURSDAY, 2.5 Walking Tunes: by Herbert Wiseman. 2.40 The Story of the Salmon: by C. H. O'Donoghue. 3.5 Merchants and Merchandise: by H. Hamilton.

FRIDAY, 2.5 Junior Geography—Water in a Thirsty Land: by W. C. Atkinson. 2.55 The Hebrides—A Programme of Story, Poem, and Song.



All the family can play this new and entertaining game; young and old alike will find in it many a new thrill and many a valuable lesson, for "Belisha" teaches the ever-valuable and all-important doctrine of "Safety First."

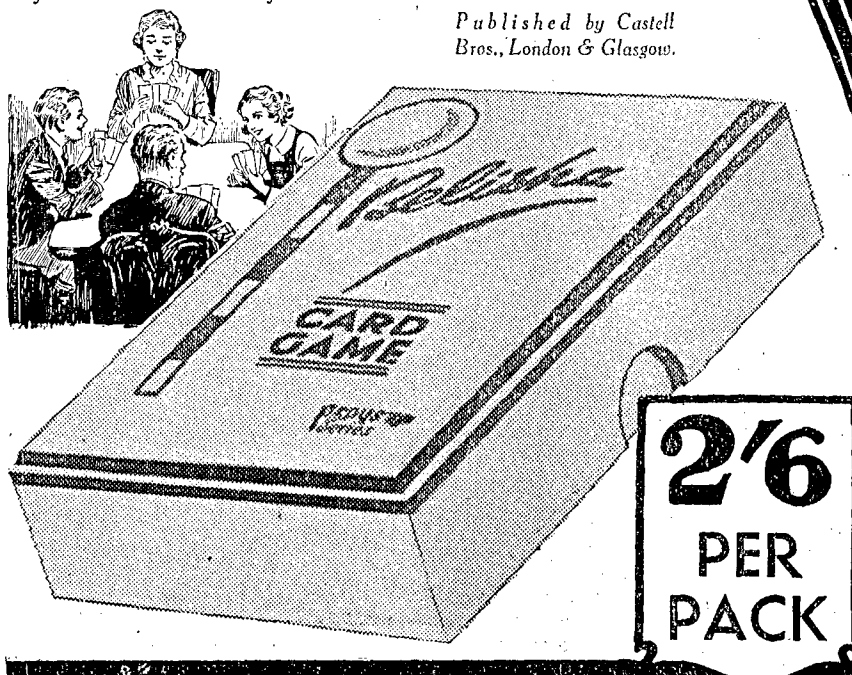
Played on the same familiar lines as "Rummy," with new and ingenious variations, "Belisha" is a game of many interests. As the game proceeds the players are taken on a tour of England and Scotland, from London to Oban, many of the cards bearing beautifully drawn pictures in colour of famous beauty spots. Each card bears in the top left-hand corner a familiar safety first symbol; some cards illustrate the dangers of the road, some show how accidents may be avoided. There's a touch of humour, a smattering of geography, a new method of teaching "Safety First" and a heap of fun. "Belisha" is a game that should be played in every home, for it has all the merits of a family or party game with the added attraction of demonstrating again and again the way to ensure road safety for all.

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ON SECRET SERVICE

By John Mowbray

Kidnapped

CHAPTER 1
Friend or Foe?

DAVID RENWICK always claimed to think best out of doors. So whenever he had a knotty problem to tackle he liked to take it into the open air.

This morning he had just left his Chief, Sir Richard Wakeling, after a conference extending for nearly an hour, and he turned into St James's Park, his favourite spot for hard thinking.

This took his mind back to the conference he had just left, the longest he had ever had with the Chief, and unconsciously his perplexity showed in a frown. "This time," Sir Richard had whispered—

He was startled out of his thoughts by a sudden loud noise. It was that of somebody in a violent spasm of coughing. And it startled him because he had heard it before at this very same spot! Back his mind rushed to the second case he had handled, his problem of the Crossword and Bladder Viaduct, back to the queer man who had been sitting here reading a newspaper when exactly the same coughing fit had overcome him, and afterwards they had got into conversation.

Yes, the same man it was, with those long, spidery legs, convulsively fighting for breath on this seat by the path, with his scraggy hands pressed to his ribs and his newspaper tumbled out of his lap to the ground. David strode across to him. And immediately, as though by magic, the man uncured his long legs and his coughing fit ceased.

"A useful trick to attract your attention," he uttered, while his shallow eyes sought David's eyes with a smile. "You remember me?" he suggested, dropping his voice. "I've been waiting a word with you."

"With me! And why?" David uttered, on the defensive.

The man made more room on the seat. "Sit down," he invited.

But David remained on his feet. "Oh, well, you will in a minute," the other declared. "If you don't know a friend when you meet one it's your loss not mine. You remember the warning about the attempt on the train at Bladder?"

David kept his face blank. "What warning?" he said.

"Come, it's no good pretending, David Renwick!"

"So you know my name!"

"And I know your job," smiled the man. "There are many who'd give a great deal to share that secret, young man." Then whispering, "Listen!" he bade. "Have I got this correct? 'Across Four. They are better without guard.' Now will you stop pretending and come and sit down?"

He had quoted the very words of the mysterious crossword which had reached Sir Richard anonymously just in time to thwart the attempt on the train at Bladder Viaduct. David's doubts were resolved; and the more so because all along after his first encounter with this strange man on that spot he had suspected him of being concerned with the matter. So now at last he sat down, and, after glancing cautiously round, "Who are you?" he breathed.

"Never mind who I am. It was I who sent you that warning. Isn't that good enough?"

"No," said David. "Tell me your name." "Well, call me Chester." The man coughed hoarsely again. "I've weak lungs," he whined. "Though they're not so bad as I make out, my lad, when it suits me. So I've packed up and I'm leaving England tomorrow. Aye, and Europe. I'm bound for Peru."

"What are you trying to tell me?" said David, turning this over.

"That I'm through with the Secret Service."

"Our Secret Service. No, I'm sorry, I mustn't ask that," David said quickly.

"Yours! Bah!" leered the other. His manner changed. "Mark, I'm trusting you, David Renwick. Why did I send you that warning against the train-wreck? Because my conscience pricked me. Those who employ me were playing an uglier game than I fancied. I'm trusting you, I repeat. And I'm through with their Service."

"But I still don't see what you're driving at," David insisted. "If you are hinting that we shall give you money to get away with—"

The man who called himself Chester broke in with warmth. "It isn't your Sir Richard who's to be the giver. It's I who am to be the giver—to you, David Renwick. I am going to leave a tit-bit with you, my lad."

"A tit-bit! What tit-bit?" stared David.

They waited. People were coming along the path. The man pointed with his lean forefinger. "They've ears!" he said. "All of 'em. Aye, I've news for you," he resumed, with his face close to David's face. "You come along with me. You'll be glad that you came."

"Is it something you have to show me or tell me?" said David.

"To show you, lad. As my parting gift. Come along! And if I wasn't putting the ocean between me and them a thousand pounds wouldn't tempt me to open my mouth." He stirred uneasily, and his faded eyes pondered David. Then muttering, "Aye, I've served them well in my time, but what I have to show you, my lad, will be fair enough restitution to you and your Chief," he drew his long and shuffling form to its feet, and at David's hesitation shrugged his stooping shoulders. "Well, I'm off," he said. "Are you coming? Take it or leave it."

Was David likely to leave it? So they went from the park together and boarded a bus for the City, where they changed into another for the East End.

"Is it far now?" David demanded.

"No," said Chester, "not far."

The bus dropped them at a corner and they walked on.

Then they dived down an alley, and stopped at a shabby little shop where a cobbler in a tattered leather apron was heel-ing boots in the window. He looked up and nodded to Chester as they went in, and through the shop, and the small room behind it, to a dark staircase. "Up we go!" exclaimed Chester, leading the way to a landing at the top with only one door.

Chester opened this door. "After you," he said, standing to one side.

CHAPTER 2

The Price

As David stepped in his shoulders were violently pushed, and through the semi-darkness of the small room another person came at him with a rush. Then he heard the door slam behind him, and next Chester's sly cackle as those long lean arms entwined themselves round his body, and began pressing his breath out.

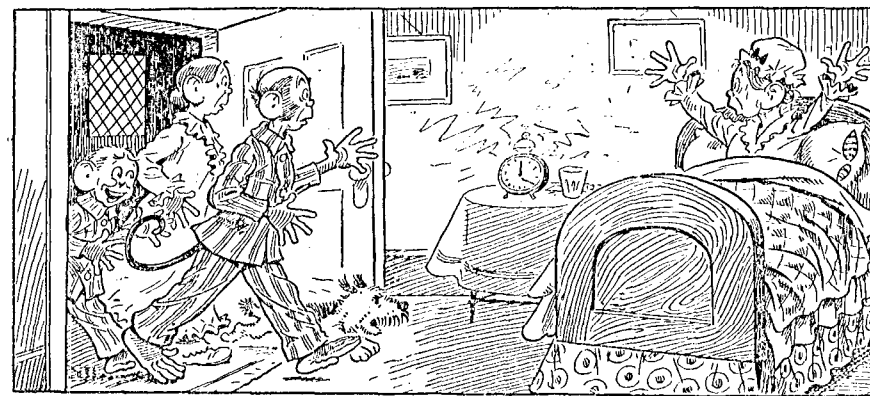
JACKO IN A KIND MOOD

It was not often that the Jacko Family was favoured with a visit from Great-aunt Jane.

The old lady wrote to say she was coming to Monkeyville to consult her lawyer, and hoped Mother Jacko would give her a bed for the night.

"Going to make her will," declared Jacko. "I hope she won't forget me."

His mother shook her head at him.



Her cries brought the whole family to her room

"I'm wondering where I can put her," she said. "She won't care to mount up to your little room."

"She can have mine," said Adolphus unexpectedly. "I'm going away for the week-end."

"Then that fits in nicely," replied Mother Jacko, with a sigh of relief.

And that was that.

When Friday came Mother Jacko went into the garden and picked an armful of Michaelmas daisies for the parlour table; and, as there were more than

Then silently the other man's hands found his throat.

David was no weakling. But the odds were too heavy. He was thrown to the floor, and it was while he lay bruised and breathless that he recognised the second of his assailants.

It was Wyvel, the man whom he had outwitted in Hamburg, the foreign spy with the chubby face and round eyes who had passed himself off as the funny man of the party, laughing at his own silly jokes all the time.

And now he laughed at David in just the same way. "Yo ho!" he burst out. "Glad to see you again! How's Spelsbury looking? Give my love to it when you get back. If you ever do get back," he added.

He spat his words out. "So, David Renwick," he said, "I've got you at last." Then, nodding to his accomplice, "Good work! Eh, my Gaston. You've been 'Mr Chester,' have you? Capital work, Gaston! And you spun that yarn about leaving Europe for good, did you? Well, you've earned your quittance for ratting over our train-wreck. Aye, I'll see you're given a clean sheet for that, Gaston."

It was clear that the man stood in some fear of Wyvel, for David, who was taking in every word, saw him flinch and then assume a fawning expression when Wyvel came to the promise of the clean sheet.

"You are sure of that?" he stammered. "You'll stand my friend, Wyvel? You'll report that it was I who trapped this smart lad?"

"I'll report you've redeemed yourself, dog!" Wyvel answered contemptuously.

It seemed to David time to put in his oar. "Trapped me, did you?" he laughed, as he rose to his feet. "No, you needn't be afraid. I'm not going to struggle," he added scornfully, as they closed upon him. "Trapped me! As if I hadn't suspected a trap? But I took the risk with my eyes open. Yes, and it has paid me. For now, you poor numskulls, I've got you both just where I want you!"

He was trying to bluff them. He wanted them to suppose that secretly his friends had shadowed him here. "You trapped me, did you, Mr Gaston-Chester," scoffed he. "No, you laid a trail to your hiding-hole. This house is surrounded."

A desperate attempt. And foredoomed to failure.

"Now we'll get down to business," was Wyvel's only response. "Here you are,

David Renwick, and here you remain, unless and until you have bought your release. How does that go?"

"Till I've bought my release!" echoed David, who kept very cool.

"Sit down!" They forced him into a chair, and Gaston stood over him, while Wyvel perched on the table. "Now listen, Renwick. I'll tell you our price. This morning I shadowed you to Sir Richard Wakeling. You spent a long time with him. What commission did he give you?"

"That's my business," David retorted.

"It's my price," snarled Wyvel.

David stared blankly.

"Oh, don't pretend that you don't understand me," snapped Wyvel. "You are on a job for Sir Richard. What is that job? Tell me, and we'll release you."

"And if I refuse?" David uttered, after a moment.

On the grimy window-pane there was crawling a fly. Wyvel dropped from the table and crushed the fly with his fingers. "You saw that?" he inquired, returning. "Flies are pests. One disposes of them. You are a pest, David Renwick. One disposes of you."

"Let's get this right," David said, with a swift indrawn breath. "If I betray Sir Richard you'll let me go?"

"Yes," said Wyvel impatiently.

David kept silence. He thought of the fate of the fly. He thought of the price—was it too big to pay for his life? What limit should one set on the price of one's life. He was sensible of a terrible coldness all over.

"Well? I've no time to waste. Count up to five for him, Gaston."

Then Gaston began to count with a slow, vicious, relish. "One—two—three—four—Ah!" he broke off, for David had risen.

"No," he said. "I won't tell you."

He had clenched his hands at his side, anticipating a blow, but all he received in return was a burst of harsh laughter. "We expected you to say that the first time," cried Wyvel, "but we'll break down your resistance—we'll break it down, Renwick!"

Simultaneously he sprang, while his watchful confederate snatched the chair up and brought it down heavily on David's head.

He was stunned, but only partially; when he came to he discovered that they had lashed him with a stout rope. Thus helpless, he was commanded to listen again.

"Today is Wednesday. We shall give you till Friday night. Unless you have told us your job by then—well, don't forget, will you, what happened to that fly."

David's head was swimming. "You can't keep me here," he articulated.

"Don't deceive yourself," rejoined Wyvel. "The cobbler downstairs will see that you don't get away. He's one of us. He'll attend to your needs while we're gone. But we shan't be far off."

So there in the slums of the East End they kept him a prisoner. He was given a bed and food was brought him by the man from below. And that Wednesday evening Gaston returned by himself. "Well, you've had first taste," he told David. "Now will you speak?"

"No," flashed David.

"You'll think better of it tomorrow. Sleep well!" leered Gaston.

On Thursday morning it was Wyvel who came, to take a different tone from that of his comrade. He argued, assuring David again and again that Sir Richard would never know who had given him away. "We'll invent a nice story," he said, "to account for your absence. You trust me, Renwick. I'll leave you in capital trim with Sir Richard. Come! Don't be so foolish, my lad. Life is sweet. So is liberty. There's no disgrace in yielding under compulsion."

But his argument prevailed nothing.

That evening the two came together. When they went off without any answer, for David resisted them with a stiff silence, they reminded him that the following day would be Friday.

"And this time tomorrow," said Wyvel, "it's one or the other."

David slept very little that night. But he dozed off toward morning, and when he woke again a broad sun was shining. He gazed at the small, grimy window. The sky was all blue. The very air which entered his prison seemed sweeter. Then he heard his gaoler's step on the stairs with his breakfast. As the fellow came in, he demanded, "When are they coming?"

"They won't be here till this afternoon," growled the man.

It was three o'clock before Wyvel and Gaston appeared. They saw a change in their prisoner.

"Well?" they exclaimed.

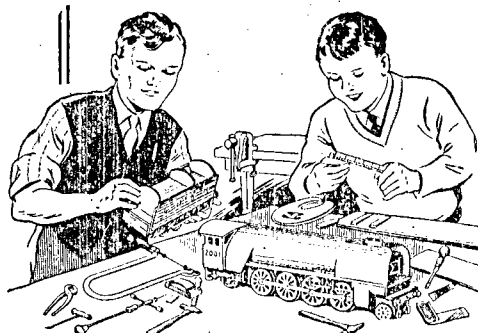
He raised himself painfully on the bed.

"Yes. I'll tell you," he uttered.

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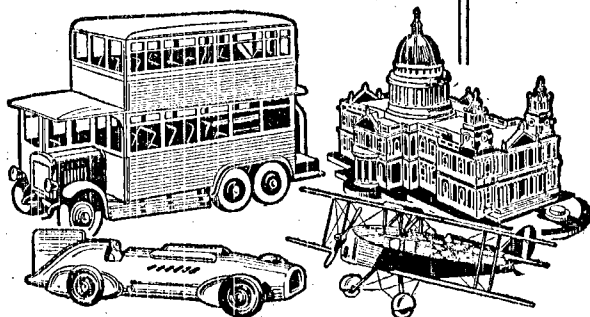
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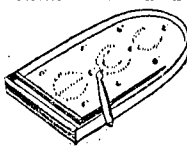
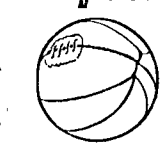
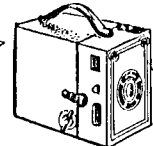
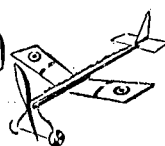
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